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ABSTRACT

The second of two volumes, this document continues the final evaluation report of Project Developmental Continuity (PDC), a Head Start demonstration project initiated in 1974 to develop program models which enhance children's social competence by fostering developmental continuity from preschool through the early elementary grades. In particular, processes of institutional change occurring over the project's 7 years of operation are examined. Chapter 1 addresses the question of information available over the last two decades about planned change in federal demonstration programs like PDC. The federal government's purposes and strategies for bringing about planned educational change are reviewed, and lessons learned from these experiences are identified. The chapter concludes with a description of the PDC program and a discussion of its purposes and organizational features. Chapter 2 describes the levels and patterns of program implementation which took place in the 11 PDC programs, discussing the variety of forces that appeared to be facilitating or hindering outcomes. Finally, chapter 3 synthesizes the evaluation's findings, drawing conclusions regarding the effectiveness of the PDC model in adapting to the psychological, organizational, and environmental forces which affected levels and patterns of implementation. (MP)

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PROJECT DEVELOPMENTAL CONTINUITY EVALUATION
FINAL REPORT

VOLUME II

THE PROCESS OF PROGRAM IMPLEMENTATION IN PDC

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INTRODUCTION

Project Developmental Continuity (PDC) was a Head Start demonstration project initiated by the Administration for Children, Youth and Families (ACYF) in 1974 to test a comprehensive strategy designed to maintain Head Start participants' apparent educational gains through the early elementary years. ACYF's intention was to create the institutional processes and procedures to link Head Start and the elementary school in such a way that children would experience more continuity between their preschool and school experiences and between their homes and school. Additionally, ACYF wanted to create mechanisms to foster continuity for children as they moved from grade to grade within the school.

To reduce existing preschool-school, home-school, and within school discontinuities ACYF employed a comprehensive structural approach to change, specifying not only the development of a coordinated Head Start through grade three curriculum but also particular administrative policies and procedures, ongoing inservice training provisions, and mechanisms for enhancing home-school relationships. Program guidelines established broad parameters with certain concrete requirements--for example, a broad range of Head Start and elementary parents and teachers and community representatives were to form a governing PDC Council; handicapped children were to be mainstreamed; teacher, staff, and parent training was to be frequent, ongoing and focus on such topics as child development; and parents were to be involved in the school and classroom in very substantive roles--but local sites were to operationalize these requirements in ways that were responsive to their local needs and resources. All of these changes were to be instituted at all levels, Head Start through grade three, after a planning year and a trial implementation year. Implementation of the program began in 1976 in 13 sites in selected Head Start centers and elementary schools distributed across the Head Start regions and the Indian and Migrant Program Division.

A longitudinal evaluation of one cohort of children, who were followed from enrollment in Head Start in 1976 through the end of third grade in 1981, was an integral part of the project. The goal of the evaluation was to evaluate the impact on Head Start children of what was intended to be both an educational strategy and a comprehensive service program more responsive to the needs of socio-economically disadvantaged young children than was assumed to exist in most communities.

The evaluation was designed in two phases, each of which had two goals: the goals of Phase I (1974-1977) were first, to determine the feasibility of a longitudinal evaluation, and second, to document the process of implementing the innovative program; the goals of Phase II, extending from the fall of 1978 through the spring of 1982, were to conduct the longitudinal evaluation and to continue documenting major aspects of program implementation in order to explain PDC's impacts. High/Scope has conducted both phases of the evaluation since 1974. The results of the first phase have been published (Love, Granville & Smith, 1978; Smith et al., 1977).

Purpose of This Volume

Volume I of the final report of the evaluation of PDC examines program impacts on participating institutions, teachers, parents and children. Volume II is concerned with explaining these impacts by examining the processes of institutional change occurring over the seven years of the project. It will synthesize all of our available information from the eleven PDC programs in which implementation data were collected[1], placing this synthesis within the context of the planned change literature. Our intention is to understand and interpret the complex processes shaping the institutional impacts generated by this federally inspired and funded educational change project.

We will address three basic questions in this volume:

1. What do we know about planned change in demonstration programs like PDC?

2. What do we know about the process of innovative program implementation in PDC (that is, how and why did the various patterns and levels of implementation occur)?

3. What conclusions can be drawn about implementing the PDC model and about the effectiveness of the change strategy chosen to implement it?

Description of Succeeding Chapters

Chapter I will address the first of our three questions, "What do we know about planned change in demonstration programs like PDC?" It will review the federal government's purposes and strategies for bringing about planned educational change, and identify the lessons learned from these experiences. Several demonstration programs, initiated in the same time period as PDC and similar in purpose but not identical in approach, will serve as illustrations for this discussion. The chapter will conclude with a description of the PDC program.

Chapter II will address the second of our three questions, "What do we know about the process of program implementation in PDC?" This chapter will describe the levels and patterns of program implementation that took place in PDC over time, and discuss the variety of forces that appeared to be facilitating or hindering these outcomes.

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[1]Twelve programs operated over all seven years of the project, but one, excluded from the impact evaluation in Phase I because of the unavailability of linguistically and culturally appropriate child outcome measures, was also excluded from Phase II site visits. Of the eleven sites remaining in the evaluation, one was excluded ultimately from the impact evaluation because of the lack of an adequate comparison sample, but remained in the institutional change evaluation.

Chapter III will synthesize our findings, drawing conclusions regarding the effectiveness of the PDC model in adapting to the psychological, organizational/cultural, and environmental forces that affected levels and patterns of implementation. The chapter will also address the validity of the project's assumptions about how to bring about educational change.

I

FEDERAL DEMONSTRATION PROGRAMS AND PDC

The purpose of this chapter is to identify what has been learned about planned educational change in federal demonstration programs over the last two decades, in order to frame a set of questions to ask of the PDC project, itself a federal demonstration planned change effort. The chapter will review the federal government's purposes and strategies for bringing about planned educational change, and identify the lessons learned and knowledge gained from these experiences. Several demonstration programs, initiated in the same time period as PDC and similar in purpose and/or approach, will serve as illustrations for this discussion. The chapter will conclude with a description of the PDC program, its purpose and organizational features, so that the reader will have a point of reference for the discussion of the next chapter, the analysis of the implementation process in this federal demonstration program.

Federal Purposes and Approaches

Much of the planned educational change undertaken during the last two decades has been federally stimulated. Although the federal contribution to the financing of public education has remained small, less than 10%, that 10% has been used to support specific purposes. Foremost among these have been developing means to assure equal educational opportunity for socio-economically disadvantaged children and in the seventies, for handicapped children, as well as improving the capacity of public schools to prepare these and other groups of children for a changing, more demanding world of work. Government turned to educational intervention as a primary means for alleviating poverty because lack of cognitive skills and performance among socio-economically disadvantaged children was believed to be the most significant constraint upon their social mobility (Levin, 1979).

A number of strategies were adopted to assure that socio-economically disadvantaged children gained the skills and motivation to succeed in the larger society. One was to implement federally developed and funded comprehensive service programs that provided special support to these children. Head Start is the best example of such programs designed to foster social competence as well as educational achievement. A second strategy was to grant federal monies to schools and communities with high percentages of low income families through categorical aid programs. Title I of ESEA was the major vehicle for such efforts. A third strategy was to build the administrative capability of state and local education agencies to solve local problems, develop their own programs, and monitor the implementation of federal programs.

Funds were provided also to stimulate the development of innovative curricular and organizational models, which then were to be tested in a small number of real world settings. Such innovative efforts came to be known as demonstration projects and had two purposes: 1) to formulate national policy, and 2) to promote the use of the innovation (Chelimsky, 1978). These projects also stimulated tremendous growth in a previously quiet field of social science research--the study of planned educational change. An applied version of this research was the evaluation of federal initiatives, often conducted by those who also did the basic research.

Of special concern to those studying PDC has been research and development activity concerning federal demonstration programs. Datta (1981) traces the evolution of federal support for development of innovative programs, and distinguishes between *directed development* and *local problem solving* approaches to bringing about educational improvement. Directed development is externally initiated, with an explicit model and specified treatment developed by research and development organizations or universities with anticipated results tested on a small scale, and with external monitoring and compliance procedures built in. Local problem solving involves local recognition of a need, local solution selection, testing, and modification, and continuous negotiation to resolve conflicting views of the needed solution. It also employs a bottom-up, rather than top-down, approach to monitoring and compliance (Elmore, 1980).

Examples of directed development include Follow Through and Head Start Planned Variation. Examples of local problem solving have included the National Institute of Education's Comprehensive School Improvement effort, and its Research and Development Utilization program. PDC represented a hybrid of the two approaches, initiating change externally, but relying upon local programs to adapt the framework to meet their own needs. Datta (1981) suggests that the federal government has gradually moved from support of directed development (in the late 1960s and early 1970s) toward support of local problem solving. Recent policy initiatives by the Reagan Administration have considerably speeded up that gradual movement.

Of all research and development monies in education--almost $900 million in 1979--a major portion went to demonstration programs. Two types of federal demonstration programs have been identified: those that test an innovation to formulate policy and those that seek to promote the use of a tested innovation to implement policy (Glennon, 1978). It has been noted that the purpose of many federal demonstrations is to prove to state and local education agencies that certain program initiatives that the federal government holds dear are feasible and practical, so that states and localities will implement them as full service programs (Rivlin & Timpane, 1975). Demonstrations have been noted also to be a means for expressing concern for a national problem when political support is not there for a broader attack on the problem, and as a strategy used by executive agencies to show the usefulness of their research and development programs.

Thus, demonstrations have both knowledge-building and political purposes. They not only test ideas, but are a tool used to re-orient goals and approaches to education in a specific area of federal activity or within specific institutions. Demonstrations are part of a political decision-making process.

Directed Development Demonstration Approaches

Two of the most significant demonstration efforts by the federal government in the late 1960s and early 1970s were Head Start Planned Variation and Follow Through. President Johnson proposed to Congress in 1967 a program to extend Head Start-like services into the early elementary grades for low income children, in order to reinforce the presumed gains and momentum created by Head Start. A second purpose of the program was to provide a vehicle for improving the "substandard" elementary schools many Head Start graduates were moving into (Elmore, 1975). The program, called Follow Through, was to become a national direct service program like Head Start; however, it was to be administered by the Office of Education, since it was a public school program. But a Congress, already becoming skeptical of a number of Great Society programs, was hesitant to approve Follow Through for full funding. The Follow Through leadership in the U.S. Office of Education thus decided to reconceptualize the initiative as a planned variation experiment in which alternative educational models for kindergarten through third grade would be developed, demonstrated, and evaluated to determine their relative effectiveness. In redefining Follow Through, however, they did not abandon their hope that eventually the circumstances would be right for an expansion of the program.

As Rivlin and Timpane (1975, p. 5) describe it, "early in 1968 a frantic effort was made to get the planned variation program set up quickly so that field operations could begin when school opened in the fall." Various research and development groups, and a few individual researchers, were already developing distinctive approaches to early childhood education, and a number were asked to specify their model or approach, and describe how it would work, for grades kindergarten through three. Implementation began in the fall of 1968 in 30 sites around the country and eventually spread to 178 sites.

The redefinition of Follow Through as a planned variation experiment led, among model sponsors, to a greater focus on innovation in curriculum, and a de-emphasis both of service primarily to Head Start children and of other elements central to Head Start. Such elements--nutrition, health, and mental health services, parent involvement in setting policy and classroom activities, and related staff development--were included in program guidelines as responsibilities of local project staff. Thus, the sponsor-developed models did not represent an effort to embody the whole Head Start approach in a comprehensive program with individual elements articulated around a particular child development philosophy.

Follow Through's shift away from the original purpose of extending Head Start into the elementary years was also a product of the decision to administer Follow Through through the Office of Education rather than the Office of Child Development (OCD). OCD was under some pressure by 1969 from the Budget Bureau to make Head Start "more experimental," so that effective and less effective approaches to and aspects of the program could be sorted out. The Office of Child Development thus decided to initiate its own planned variation experiment, inviting eleven Follow Through sponsors

(who had developed, and, in some cases implemented preschool programs) to test their models at the Head Start level, by implementing them in Head Start centers that fed Follow Through elementary schools. This project was named Head Start Planned Variation.

Follow Through and Head Start Planned Variation were evaluated as separate demonstration programs, by different contractors. Although OCD hoped to link the two evaluation efforts, many HSPV graduates were not enrolled in Follow Through schools because of geographic location, and for those who did there was no control group followed from HSPV entry through third grade. Numerous logistical, methodological and conceptual problems plagued both evaluations from the beginning. Those involving Follow Through have been widely discussed (Elmore, 1975; House, Glass, McLean, & Walker, 1978). Those involving HSPV have also been reported (Datta, 1975; Smith, 1975; Lukas, 1975).

In both planned variation experiments the models were hurried into action before they were fully thought through and operationalized. This "testing by fire" accelerated the model development process, but may have been unfair to sponsors and site level implementors, still struggling to turn ideas into day-to-day classroom practices, with an evaluation already breathing down their necks (although both programs had a start-up period before effects were to be measured). Evaluators themselves rushed into the fray, optimistic that they could overcome the effects of non-research-oriented bureaucratic and political decisions. This optimism was not well founded, as eventual results seemed to reflect not so much control-comparison or inter-model differences, as the powerful influence of variation in local conditions and among individual teachers within local programs.

The Office of Education, the Office of Child Development, and the model sponsors all had to wrestle with contradictory pressures induced by attempts to link Head Start and elementary school programs. Head Start's broad notion of social competence[1] was filtered through widely varying philosophies of child development, ranging from behavioral, through cognitive-developmental, to psychosocial and humanistic child-centered approaches. These philosophies were operationalized by individual sponsors. And the operational models were then significantly altered by the structures, processes, and goals of Head Start and elementary schooling, by local socio-educational cultures, and by individual teachers.

In both planned variation experiments, the models changed over time, as sponsors learned from local efforts. Local community action agency and school officials sometimes used the programs and the funds accompanying them as political weapons in local struggles over who should have the resources to solve educational and social problems and how the resources should be used. Parents of participating children used program-mandated vehicles to push for educational change, also influencing model implementation.

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[1]Head Start's definition of social competence is "the child's everyday effectiveness in dealing with both present environment and later responsibilities in school and life" (Head Start Program Performance Standards, July, 1975).

What was eventually learned from the two planned variation demonstration experiences?

- First, it proved almost impossible to control crucial variables in setting up and implementing the "experiments." Thus, the evidence they provided to shed light on the social policy issues at stake was strongly confounded by a host of interfering factors, and the contribution of the demonstrations to the formulation of national policy became questionable.

- There was more variation in outcomes within models--sites, schools, and teachers--than between them (Lukas, 1975; Cohen, 1975; House, Glass, McLean & Walker, 1978; Stebbins, St. Pierre Proper, Anderson, & Cerva, 1977. Variance in model implementation appears to have made an important contribution to variance in outcomes.

- It was somewhat more possible to control what went on in the Head Start system--at least superficially--than in the public school systems associated with Head Start centers in the Follow Through program. Even for Head Start Planned Variation, however, variability in implementation among teachers in particular sites appears to have been significant (Lukas, 1975).

- The evaluators of Follow Through, the far larger of the two experiments, also found that: "Poor children still tend to perform poorly in school even after the best and the brightest theorists--with the help of parents, local educators, and federal funds, and supported by the full range of supplementary services associated with community action programs--have done their best to change the situation." (Anderson, St. Pierre, Proper, & Stebbins, 1978, p. 163).

The latter finding, more powerful than the more widely discussed finding of difference among models on selected outcome measures, has been questioned by model sponsors and, more generally, by early childhood educators. Hodges (1978) for example, notes that in total reading achievement, "the mean score for Follow Through children was above the 20th percentile in 62% of the local school districts," and in math the comparable figure was 70%. Since the average level of achievement for Title I and Follow Through eligible children is the 20th percentile, these scores represent a real improvement. Hodges also cites evidence that programs achieved results in keeping with models' priorities and that Follow Through parents consistently reported more positive attitudes toward and greater involvement in school than did non-Follow Through parents. Finally, Hodges and others have noted that the working through of comprehensive, coherent curricular approaches was of great value to American education, and demonstrated one of the most powerful tools available for enhancing children's educational experiences.

Other major programs, besides demonstration efforts like Follow Through and Planned Variation Head Start, were proving difficult to influence and monitor from Washington, D.C. The largest of these, Title I, was designed to target federal monies in schools and communities with high percentages of low income families. The monies would be used categorically for special classrooms and teachers, crucial support services (nutrition and health), curriculum development, in-service teacher training, and so forth. Children were identified for participation in the program using achievement and economic criteria. Officials in the Office of Education were finding by the early 1970s significant variability in patterns of use of the federal funds provided under Title I for seemingly specific purposes. Federal legislators feared that Title I funds were not being concentrated on those schools and those children most in need of support. The Office of Education's early response to variability in local responses to Title I was to clarify rules and regulations and tighten monitoring of compliance.

More operational rules and regulations and closer monitoring of performance did contribute to greater accountability and awareness among local districts concerning the appropriate use of Title I funds (National Institute of Education, 1977). But while tighter federal regulation stimulated more paperwork to document numbers of teachers trained and numbers of children and classrooms involved, tighter regulation seemed to have relatively little impact on the pattern of allocation of funds or on children's classroom experience and achievement (Levin, 1979). The problem remained: how to encourage teachers, principals, and central administrators to seriously address the problem of enhancing educational experiences and outcomes for socio-economically disadvantaged children, and generally make changes to use resources as originally envisioned.

Policy lessons learned from these demonstration experiments have depended on the perspective of the policy analyst. The most pessimistic stance might be that early educational intervention and school improvement through directed development approaches have little impact on educational outcomes for socio-economically disadvantaged children, for various reasons, among them are the possibilities that the central defining features of public school life are far more powerful than those introduced by discrete innovations, and that externally generated models cannot be implemented in local settings without so much alteration that they frequently may not resemble the original models.

A middle ground might be that planned variation experiments can be useful if they are more effectively implemented than were Follow Through and HSPV. A long-term program development process moving through the stages of small-scale experiment to materials development and training to demonstration might reflect a truer test of the ideas involved and allow time for more model-sensitive evaluation measures to be developed. However, in criticism of the adequate controls and time frame notion, Cohen (1975) suggests that it is simply unrealistic to expect national policy concerns to wait that long to be satisfied. Local conditions and perceived program needs also change dramatically over a period of years. With respect to

program-sensitive instrumentation, public, political and bureaucratic demands are for academic achievement, demonstrated by any psychometrically sound achievement test. Model sponsors can choose the one that best fits their program objectives. Problems arise when the perceived need for cross-program comparisons necessitates the selection of a single achievement test that may not fit the emphases of a particular program.

A more optimistic appraisal of planned variation and directed development for educational improvement suggests that it has contributed signifj-cantly--albeit incrementally on a year to year, or demonstration by demonstration basis--to an educational climate more receptive to the special needs of many children. The visibility of major demonstration efforts has led to at least partial incorporation of the values they embody. They have contributed to the knowledge base concerning what kinds of environments and practices enhance educational outcomes for socio-economically disadvantaged children. Finally, they provide a vehicle for field-testing new ideas, which will always be appearing on the educational scene.

Local Problem Solving Approaches

The difficulties encountered by the federal government in the late 1960s and early 1970s in bringing about externally directed change in local school systems contributed to the evolution in the mid and late 1970s of an alternative view of the best means for bringing about planned educational change. Its thesis was that those directly involved with educating children on a day-to-day basis are in the best position to define problems, select or develop solutions, and implement them. Further, when planned change is to be externally stimulated with federal resources, those responsible for implementation at the local level must be involved in key decisions at the earliest possible point in time. The National Institute of Education (NIE) took the lead in developing demonstrations of the local problem solving approach, through such efforts as the Experimental Schools (ES) Program, the Research and Development Utilization Program (R&D/U), and the Comprehensive School Improvement Program (CSI).

These programs allowed local school systems to choose the problem(s) they wanted to tackle, but mandated that the local systems utilize a process of systematic problem identification, solution search, solution selection and implementation process, involving particular groups of local participants. The programs varied in the comprehensiveness of change sought in participating schools; ES and CSI encouraged basic organizational and curricular change, R and D/U more selective change. A typical ES project might involve reorganizing instruction in a whole school or small school system to make it more individualized. A typical R and D/U project involved finding more effective reading approaches from among new products emerging. Thus, local problem-solving efforts could vary considerably in the comprehensiveness of change anticipated. Through all these programs NIE was trying to identify processes, conditions, prerequisites, and incentives that appeared to lead to more enduring local school improvement.

What was learned from these programs? Just as with directed development efforts, there was considerable variability in how additional resources provided by these programs were utilized at different demonstration sites. But with fewer specific regulations, effective local problem-solving demonstration projects depended even more on the skills and motives of local leadership at the district and school level. Further, there was some evidence that the notion of "content-free" innovation was difficult to communicate to potential local implementors, particularly classroom teachers, and that lack of specificity in federal intent did not necessarily contribute to creativity at the local level (Firestone, 1977). It also proved difficult to measurably influence the educational experience that particular children were having in classrooms that were part of innovative programs. Innovation was not clearly reaching the level of child-environment interaction.

There were significant numbers of communities involved in the aforementioned and other demonstration efforts that used external resources effectively in solving genuine problems. These tended to be communities that had previously identified a problem and were already struggling to resolve it. In some cases the problem was institutional, as in making desegregation proceed more smoothly; in some the need was instructional, as in revising social studies or reading curricula to make them more exciting. In some of these communities, according to Louis, Kell, Chabotar, and Sieber, (1981), external resources were used opportunistically, but constructively, to continue attacking those problems.

Nonetheless, the data available about persistence of changes implemented through federally-funded and other local problem-solving demonstration projects has not pointed in a positive direction. In many instances innovations were constrained by existing processes and procedures of the school systems; in most cases they were modified during implementation by teachers, and in some cases, they were simply dropped. They left a residue of products, new knowledge, and in a few cases, modified instructional approaches. But participating principals and teachers moved on, new district curriculum requirements were mandated, even newer innovations were introduced, policy priorities changed. In fact, the most enduring outcome of these efforts may be the knowledge that has accumulated about the conceptual and practical problems inherent in planned educational change.

Both the pessimism and the continued debate over the amount of innovation that has occurred as a result of planned change efforts have produced shifts in the paradigms employed by researchers to understand planned change within educational institutions. Before discussing these theoretical frameworks and their relevance to demonstration programs like PDC, however, it is necessary to understand the goals and structure of PDC. The next section describes the nature of the PDC program.

The PDC Program

Project Developmental Continuity (PDC) was a demonstration program that in conception and implementation fits clearly into the federal government's broader efforts to enhance educational opportunity and outcomes for socio-economically disadvantaged children. Of the many causes of lack of equal opportunity for and poor outcomes among these children, the Administration for Children, Youth and Families chose in the PDC demonstration to tackle the discontinuities experienced by children as they moved from Head Start classrooms into and through the public schools, and from home to school, which were believed to impede Head Start children's development of social competence.

ACYF's explicit goal for PDC was that it stimulate the development of disseminable program models that would enhance low income and minority children's social competence by providing greater "developmental continuity" as they moved from Head Start into and through the early elementary years.[1] To achieve this goal ACYF provided selected community agencies across the country with both financial and technical support to work with Head Start centers and elementary schools to develop programs within a framework established by federal guidelines. The PDC Guidelines required program activities that would (1) enhance administrative, curricular, and support service linkages between Head Start and elementary schools; (2) enhance continuity of educational experience from preschool to school, from grade to grade, and from home to school; and (3) attempt to build broader child support services and a developmental approach into elementary school programs. Thus, ACYF set the general program objective and specified the basic parameters of the innovation process and of program operations, but relied upon local problem-solving to generate fully operational models.

The PDC demonstration effort was linked conceptually to Head Start Planned Variation and Follow Through before it, and in many ways to Title I of ESEA. In that sense it was a continuation of previous or ongoing efforts to test and implement the ideas inherent in these programs. Strategically, though, PDC differed from these efforts in two ways.

First, PDC was to incorporate the comprehensive health and social services, and systematic parent involvement program emphasized by Head Start. The decision to initiate PDC grew out of ACYF's persistent belief that the "momentum" generated by Head Start could be sustained only by assuring continuity between Head Start and school of children's experiences, by providing a structure for the schools to broaden their approach, focusing on the whole child and involving parents to a greater extent in their children's education.

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[1] A discussion of the goal of "social competence," and of "developmental continuity" as a means for achieving it, is presented in *Volume I* of this report. Briefly, "social competence" has been defined as "an individual's everyday effectiveness in dealing with his environment" (Edward Zigler quoted in Anderson & Messick, 1974). "Developmental continuity" refers to an uninterrupted process of learning flowing out of previous home and school experiences (ACYF, 1977).

PDC placed major emphasis on the development of coordination and continuity of programming. Thus, PDC, though directly shaped by previous experiments, did not replicate them: the project was to be managed from start to finish by one agency of government, ACYF; and formal institutional links were to be created between Head Start centers and public schools to ensure coordinated program development and implementation.

Second, PDC departed from HSPV and Follow Through in another basic respect. It did not employ sponsored, externally generated educational models to be implemented in planned variation manner from site to site. Neither did it employ a purely local problem-solving/capacity-building approach. Rather, ACYF staked out a position for PDC somewhere between directed development and local problem solving. ACYF staff had identified the broad problem in need of solution. They developed the framework for a solution--each PDC site had to implement certain policies, procedures and structures at the institutional level. But it was left very much up to the sites to employ their own curricular philosophy and translate broad federal guidelines into day-to-day practices, with assistance provided by an ACYF-designated technical assistance contractor.

Theoretically, the approach appeared to make sense, for it communicated a federal purpose for utilization of the resources provided by the demonstration program, but at the same time allowed local implementors to translate that purpose into a form compatible with local conditions. The technical assistance component to the project was consistent with this national/local blend. It was designed to enable sites to work through program ambiguities, and individual implementation problems with the help of one external contractor familiar with the national goals of PDC.

What might be called the PDC concept was articulated in the following objectives (ACYF, May 1977) for each of seven component areas:

> Administration. *Develop necessary administrative mechanisms that will guide the planning and implementation of Project Developmental Continuity projects. Explore various strategies for achieving continuity by allowing for variations in the programs at the local level.*
>
> Education. *Implement a sequenced and continuous educational program for children as they move from Head Start through the primary grades. This program will emphasize social competence, teaching of basic skills, and individualized instruction. It must include developmental activities which encourage the physical, intellectual and social-emotional growth of children. Involve teachers and parents in meeting the child's social, emotional and intellectual needs in ways appropriate to his developmental level.*

Bilingual/bicultural, multicultural education. *Insure that children from different language and cultural backgrounds receive individualized services within the context of the regular Head Start and elementary school program.*

Education of handicapped children. *Insure that handicapped children receive individualized services within the context of the regular Head Start and elementary school program.*

Parent involvement. *Involve parents in the Head Start and school experiences of their children, promote parents' understanding of the continuity of the child's development and the importance of continuity of experiences, and enhance parent participation in the decision-making process.*

Development support services. *Promote continuity in the nutritional, medical, dental and social services provided to children as they move from a Head Start program to the primary grades.*

Training. *Provide ongoing training for Head Start and school parents and staff and Council members in the areas of (a) child growth and development and (b) Project Developmental Continuity's philosophy, goals and objectives. Training must be oriented to helping staff meet the developmental needs of the total child.*

These objectives were further specified in a set of guidelines, which laid out product specifications for which developers would be held accountable within the seven component areas.

PDC Guidelines

The PDC Guidelines provided ACYF with a modicum of control over the implementation of programs in local projects. Moreover, they provided local projects with a ready-made framework for innovation that might have been difficult for some to formulate independently guided only by general statements of program development objectives.

PDC Guidelines were organized into seven "component areas." Within each area, "basic principles" were stated and "required elements" specified (ACYF, 1975):

1. *Basic Principles are general statements of philosophy pertaining to the Component Areas which must be addressed by all sites when designing activities in those areas.*

2. *Required Elements are more specific program activities or details which must be included within the Component Area during the operational year.*

ACYF also encouraged, even "required," natural variation in response to local situations:

> *Sites may design locally appropriate methods or activities within each component area, provided that the basic principles are addressed and the required elements are included. Regardless of the strategies decided upon for full component coverage, the total plan must be suitable to the particular needs of the locale, and must be satisfactory to the community. Local ethnic, cultural and language characteristics must be taken into account.*

ACYF's posture toward local program variation reflected both Head Start policy regarding community control and an understanding, based on long experience, that without a sense of "local ownership" innovations are unlikely to take root.

Guideline requirements in each of the seven component areas are described briefly here, and at greater length in Chapter III of Volume I which looks at patterns of Guideline implementation across sites.

- Administration. Each project was to hire a full-time PDC coordinator as well as full- or part-time support services and parent involvement coordinators. Each site was also to create a PDC Council composed of representatives from the following groups: parents of PDC Head Start and elementary school children; members of the Head Start Policy Council and local school board; Head Start and elementary school administrators; Head Start and elementary school staff; and local community groups. This Council was to be responsible for the overall operation of the PDC Project.

- Education. Concern for the "whole" child was emphasized in all the education requirements. Sites were required to develop or adapt a compatible, coordinated curriculum that provides experiences for children appropriate to their developmental levels, interests, and needs. The use of individualized instruction and diagnostic-evaiuative systems would facilitate teacher awareness of the uniqueness of each child.

- Services for bilingual-bicultural and/or multicultural children. Guidelines stressed the importance of taking into account the different linguistic, ethnic and cultural backgrounds of children. Classroom activities and materials were to reinforce children's pride in and understanding of their background and provide opportunities for children to learn about and appreciate the cultures of others. Teachers were to be made sensitive to the needs of multicultural children and to involve parents in their children's educational program.

Bilingual-bicultural demonstration projects. A special set of basic principles and required elements was written for those sites designated as bilingual-bilcultural demonstration projects. These Guidelines stated that the design and implementation of all components at these sites were to incorporate a bilingual-bicultural approach. An educational and social setting was to be provided that was based on the child's primary language and culture. The bilingual-bicultural educational approach was to build upon strengths the child brought to the learning situation, to expand upon the child's native language and to make use of the child's native language for instructional purposes.

- Services for handicapped children. PDC was committed to the concept of mainstreaming. The Guidelines further required a yearly survey of handicapped children, procedures for early diagnosis and evaluation, special resource teachers, and special training for classroom teachers in working with handicapped children.

- Parent Involvement. Concern with involvement of parents in school activities permeated the Guidelines. Sites were required to develop coordinated parent programs that involved parents in all phases of program planning, operation and evaluation. Guidelines also required that programs try to involve parents in classrooms, in the Council, in component subcommittees, in training sessions or workshops, and in planning PDC activities.

- Developmental support services. Guidelines for this component defined the kinds of services that had to be made available to all PDC children. The nutritional, medical, dental, mental health, and social services needs of children were to be assessed upon entry into the program and arrangements made to provide needed services. There was to be a consistent and complete record-keeping system, contact with community resources, and information provided to parents about their children's needs and the availability of community resources.

- Training. Guidelines stressed the need for ongoing training activities and called for a schedule that included sessions related to each of the component areas with agendas that targeted diverse audiences. For example, the Guidelines called for training parent volunteers to work in the classroom, training for teachers to sensitize them to the special needs of multicultural children, training for PDC Council members in policy- and decision-making skills, and training for teachers and administrators in how to work with parents.

The PDC Sites

Starting Up

The PDC program, conceived by federal planners in Washington, D.C., reached local communities through a process involving national, regional, state and local officials. Potential sites in each of the ten ACYF regions were identified by regional office staff. Additional sites were to be chosen to represent the Indian Migrant Program Division of ACYF. Sites came to be chosen in a variety of ways. In some cases regional office staff contacted grantees or local Head Start directors who then solicited cooperation from school district officials. In other cases regional staff went directly to local school district directors of federal programs to determine their interest in the program. (In one site a state university contacted the district directly, leaving out the local Head Start program; in another site the state education agency asked the district if it were interested in PDC.) District and Head Start officials, and frequently the participating principal, then drew up a proposal. Following submission of proposals from sites and in some cases after site visits by state officials and LEAS, a review panel composed of ACYF national and regional staff and U.S. Office of Education and State education agency personnel selected two sites from each of three Regions (II, III, and VIII), and one site from each of the remaining Regions. Three of these 13 sites were designated Bilingual-Bicultural Demonstration Projects serving Hispanic children. Two additional sites were selected to represent the Indian and Migrant Program Division of ACYF, raising the total number of local projects to 15.

Operation of the program began at 14 sites in the fall of 1974 and in January 1975 at the fifteenth. The entire first year of program operation was devoted to program planning. Staff were hired, component area task forces were appointed, and detailed plans for actual implementation were gradually developed.

During Year II, 1975-76, fourteen sites (one had withdrawn), comprising a total of 42 Head Start centers and elementary schools (some sites had two or three participating elementary schools and/or two or three Head Start centers), began to implement their plans. Year III, 1976-77, was designated the official "Implementation Year"--i.e., the year in which all local programs were expected to be fully operational, and the year in which the cohort of children that would constitute the evaluation sample would be enrolled in Head Start. At the end of Year II, a second site dropped out, leaving 13 local projects to implement their developmental continuity programs. At the end of Year III, another site dropped out and ACYF committed itself to funding the remaining 12 projects through the end of the 1980-81 school year when the evaluation cohort of children would graduate from third grade and PDC.

Technical Assistance

ACYF provided local projects with continuing external technical assistance, attempting to overcome common limitations of the local problem-solving approach to program development. Technical assistance to local projects was provided first by Huron Institute of Cambridge, Massachusetts, then by Pacific Consultants of Washington, D.C. During Years I and II, each site was visited several times

by Huron Institute's field staff whose role was to facilitate the local problem-solving process. Huron Institute staff also assisted ACYF in planning and conducting yearly national workshops that provided a continuing forum for discussion of implementation, funding, and evaluation issues, as well as opportunities for formal and informal exchange of ideas among project staff from across the country.

Pacific Consultants assumed responsibility for PDC technical assistance in Year III of the project and continued to provide various services to local projects and ACYF until federal support of the demonstration terminated in June 1981. During this period, Pacific Consultants staff made periodic site visits to help local project staff address issues of implementation and continuing program development. In addition, they helped ACYF plan national conferences and they published occasional PDC newsletters intended to foster better communication among local projects and to represent PDC to the larger community.

PDC Program Management

PDC project management originated at the highest level with national ACYF program staff, to whom sites sent their yearly project proposals and monthly progress reports. At an intermediate level were ACYF regional staff, who offered support to programs as necessary, and who sometimes were called upon to resolve sites' problems, but usually were not directly involved with the program. Funding levels for each program were decided each year at the national office and came to programs through various organizational arrangements.

Funding arrangements. A majority of the 11 sites adopted one basic funding arrangement: the local community action agency (an organization often responsible for various federally funded human service programs) was designated the grantee for PDC, and the local school district was appointed the delegate agency.[1] This arrangement is illustrated by type "A" of Figure 1. Slight variations of this funding arrangement were adopted by two other sites, in which a group other than the CAA was the grantee but the school district remained the delegate agency (types "B" and "C" of Figure 1). For eight of the eleven sites the school district was the delegate agency for both the PDC and Head Start programs, an arrangement which reproduced the existing Head Start-school district administrative relationship.

In the three sites that had no history of Head Start-public school interface, no new formal organizational bonds were forged: in one site the city council was the grantee and the local Head Start organization remained the delegate agency (type "D"); and in two sites, the nearest community action agency became both grantee and delegate agency (type "E").

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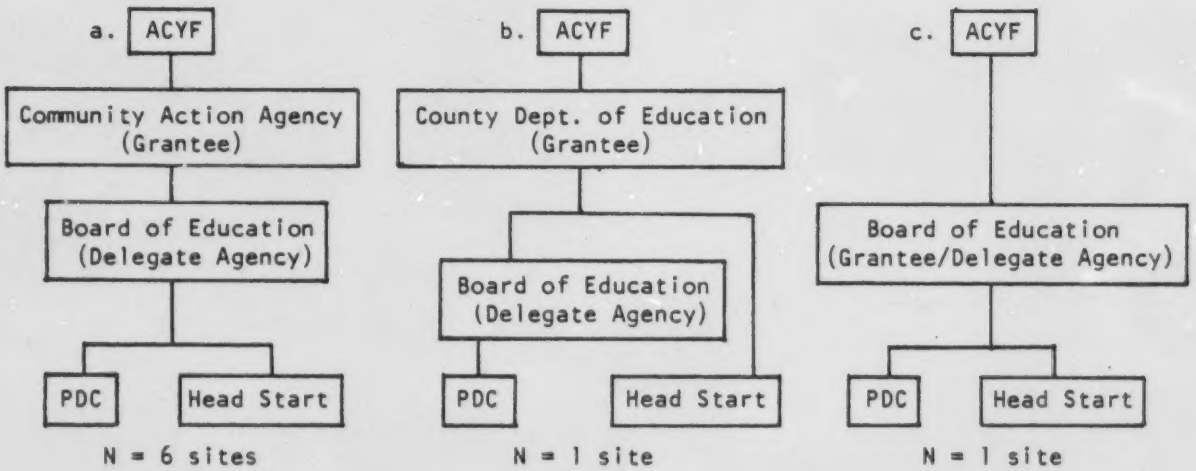
[1] In general, "grantees" receive funds from ACYF for specific programs such as Head Start, whose activities they monitor, but whose ongoing program operation they assign to "delegate agencies."

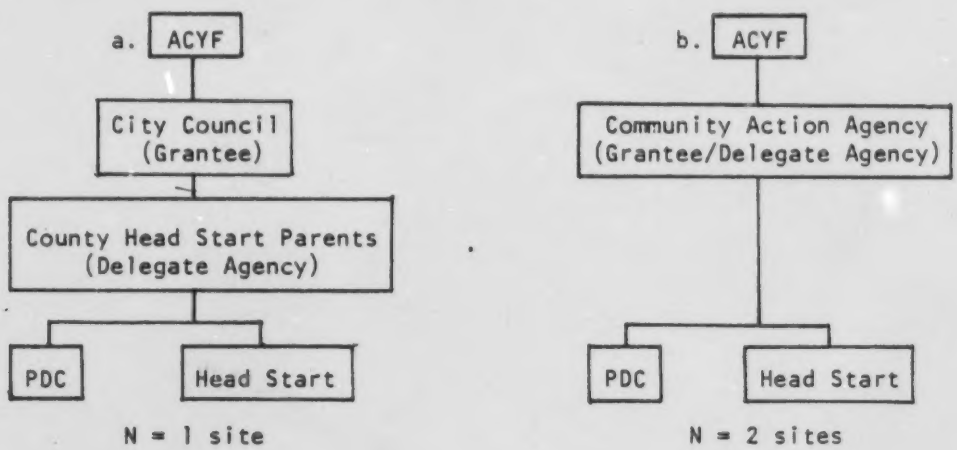
Figure 1

Funding Arrangements

1. Existing Head Start - School District Organizational Linkages



2. No Prior Head Start - School District Organizational Linkages



Program models. Another organizational variation concerned program model. Initially sites chose to adopt either the Preschool-School Linkage model (PSL), in which Head Start classrooms and elementary schools were in separate buildings, or the Early Childhood Schools (ECS) model, in which Head Start classrooms were located within a designated PDC elementary school building. Six sites chose the ECS model. (For five of these sites Head Start classes were either already in the chosen PDC schools or already in other elementary schools.)

Two of the three sites with little history of Head Start-school district relationship adopted the PSL model as did the three sites where Head Start classes had previously been housed separately from elementary schools. ACYF's intent was to demonstrate the feasibility of the PDC approach within a variety of institutional arrangements.

Geographic, economic, educational contexts. The PDC program was implemented in many distinct regions of the country, each with a unique history of social and political relations and cultural values. These regions included the rural south, the Mexican-American border, the San Joaquin valley, the center of Mormon life and culture, the Rocky Mountains, the mid-western farm belt, the Great Lakes, the eastern seaboard, and the Pacific northwest. Within these diverse regions the local communities in which PDC was implemented varied significantly. Community size ranged from small towns of 14,000 to urban centers of half a million. Employment opportunities varied from lumber yards and migrant farm work to automobile assembly lines and military bases. Ethnic composition in some PDC neighborhoods was largely Hispanic, in others predominantly black or white, in still others multicultural, sometimes including increasing numbers of Indo-Chinese refugees.

Economic, political and socio-demographic trends among the PDC sites reflected national trends throughout the United States. Although a few PDC communities were financially healthy, many, especially in the larger urban areas, were going through a period of budgetary constriction. In a number of sites, fiscal retrenchment by local and state governments led to reductions in social and educational services. During the project period school-age populations had begun to level off or decline, and middle-class outmigration, partly as a result of busing and alleged deterioration in the quality of public school programs, had been significant. Both the decline in the school-age population and the outmigration, resulting in eroding tax bases, were causing some communities to go through the painful and divisive process of closing elementary schools. In contrast, the few financially healthy PDC sites were benefiting from industry moves and population shifts to their areas.

School district characteristics also varied significantly along several dimensions. There were large, urban school systems with significant numbers of elementary schools spread out over a great area, and there were districts with only two or three elementary schools. Some sites had a long history of involvement in federal programs, a few did not. Some smaller districts were extremely centralized administratively, while in others authority and decision making were quite decentralized. In a few sites, teachers' unions had significantly shaped local educational policy; in others, unions were negligible factors.

As with broader social trends, PDC communities were experiencing many of the educational trends sweeping the nation. These included: a back-to-basics thrust (and related to that, a focus on minimum competency testing); conservatism; court-ordered or state mandated desegregation plans; teacher activism in a few sites; declining parent involvement due to more parents working; disappearance of the "neighborhood" school due to busing or building closings; and a general sense, in at least some PDC communities, that the quality of public education was declining. Table 1 provides a site-level sketch of significant educational trends and issues at each site.

All of the contextual factors mentioned above, and more, brought powerful forces to bear on the PDC initiative at each site. As local PDC programs developed in interaction with these forces, each took on certain distinctive features, with the result that there were ultimately as many PDC programs as there were local projects. Chapter II describes and attempts to explain the emergence of site-level variation in the PDC program.

Table 1

Socio-demographic Settings

1: 34,000 residents in heart of major agricultural region, San Joaquin Valley; mostly working class with some affluent in-migration from major cities; large Mexican-American population, mostly second and third generation natives; rising cost-of-living; PDC school located in Mexican-American neighborhood; relatively stable community.

Fiscally healthy, but financial retrenchment due to Proposition 13; teacher activism on the rise, salaries not keeping up with inflation; population of school children changing as urban emigre families arrive; less small-town atmosphere, more emphasis on academic achievement.

2: 120,000 residents; in Rockies; mostly working class, with some university-related population; large Mexican-American minority, residents for many generations, now integrated politically and socially into life of the community.

Ten-year history of involvement in federally sponsored educational programs; has led to experimentation and innovation throughout the school system; period of fiscal retrenchment in school system; many schools overcrowded and teacher-pupil ratio high--no declining enrollment problem; new management system initiated, involving much planning, goal specification, and individualization of instruction; increasing burden on teachers due to above, but also more freedom to use variety of materials.

3: 84,000 residents; northeastern suburb located in one of wealthiest counties in the nation; extremely heterogeneous population ethnically, socio-economically, socially; in-migration of minorities--mostly blacks and Hispanics--out-migration of wealthier population, leading to erosion of tax-base; social services going through period of retrenchment; decline in quality of life perceived by many.

Declining school enrollment causing close of two elementary schools; use of busing to re-distribute elementary school population to under-utilized schools; massive internal review of all components of school system due to perceived decline in student achievement and services; goal at review is to identify programs to cut; declining parent involvement, due to busing and to parents working; loss of neighborhood school concept; among elementary schools a clear division between humanistic, multi-cultural orientation and back-to-basics movement.

4: 17,000 residents in two small, southern rural towns; county with largest U.S. agricultural production; population largely migrant, mostly black, some Hispanic; poor living conditions, general rural poverty.

Table 1 (continued)

Unique needs of migrant families creating special demands on school system; high student/teacher ratios; because of long working hours, it's difficult for parents to become involved in school life; generally low achievement by students; high teacher turnover rates, poor physical facilities; teachers bused in from other towns.

5: 200,000 residents; urban with many of the problems of large mid-western cities, but without a high concentration of minorities; increasing number of Southeast Asian refugees; declining enrollment and closing of neighborhood schools; out-migration of higher income families; erosion of tax base; desegregation in schools through busing; inflation hurting local economy; retrenchment period for social services.

Declining enrollment in context of fiscal retrenchment and inflation--school district strapped financially; federal programs used in district to explore different instructional programs; desegregation of schools an ongoing process.

6: 18,500 residents; eastern suburb; ethnically, culturally and economically diverse; large in-migration of upper-income families; some out-migration of poor families from low-income housing areas; abundant social services.

"Magnet school" concept in elementary schools, each with a unique program (i.e., bilingual program, gifted and talented, etc.); very large county school district; Head Start within school system--70% of Head Start's financial support from school system--allowing many children into Head Start who would normally not be eligible.

7: 85,000 residents; urban community extremely dependent on auto industry; recent downturn in that industry has had harsh impact on city's population; marked demographic change in last few years; deterioration of downtown area; decline in property values; significant middle and upper class out-migration; growing minority population, from 32% to 52% in three years; declining tax base.

Recent large-scale administrative reorganization; desegregation and busing significant influence on school system, many families losing sense of neighborhood school; district standardized test scores among state's lowest, drop-out rates among highest; school system financially strapped--diminishing tax base, repeated failure of millage votes; repeated "pink-slipping" of less experienced teachers.

Table 1 (continued)

8: 26,000 residents; small town on Mexican border; large Mexican-American population, many first generation; community permeated by Hispanic language and culture.

Consolidation of two school districts--one primarily Mexican-American the other Anglo--necessitated sweeping educational change; all federal funds pooled in district to insure all children receive needed services; special challenge--to see that the children become competent English speakers and readers.

9: 550,000 residents; urban community dominated by Mormon church--culturally uniform; aversion to government interference in form of welfare and social programs--belief in taking care of their own problems; deep Mormon/non-Mormon distinctions in population.

Very centralized school system; strong emphasis on basic skills and accountability; Mormon values infuse all aspects of school life; declining enrollment an issue with school population decreasing from 50,000 to 25,000; district loses 800 students a year, and has closed 27 of 64 schools; population of teachers getting older; strong emphasis on parent volunteerism in school programs, as service to church and community.

10: 156,000 residents; city on western coast; center of commerce for the area with deep-water harbor, three major defense installations; a lot of wood and paper products industry, some metal and chemical plants; seasonal agricultural industry; small minority population with influx of Vietnamese and Cambodian refugees; generally stable community.

Former school-level autonomy for elementary schools to develop own instructional program diminished by prolonged teacher-strike in fall 1978 and a changing funding situation--state control; change in fiscal management and allocation--state imposed--has restricted use of state funds to basics; back-to-basics a strong movement; encouragement for parent involvement in district decision-making; district has active history of seeking and securing federal funds for education; 10 or 42 elementary schools have both preschool and elementary program.

11: 14,000 residents; semi-rural; significant population growth in last few years, as much as 30%; growing industrialization of area has led to increasing tax base, demand for social services, an "opening up" of the community.

"Traditional" school system until recently; strong sense of community; public kindergarten instituted in elementary schools for first time 1977-78; large percentage of children with special needs; fiscal retrenchment becoming an issue.

II

PDC PROGRAM IMPLEMENTATION

OVERVIEW

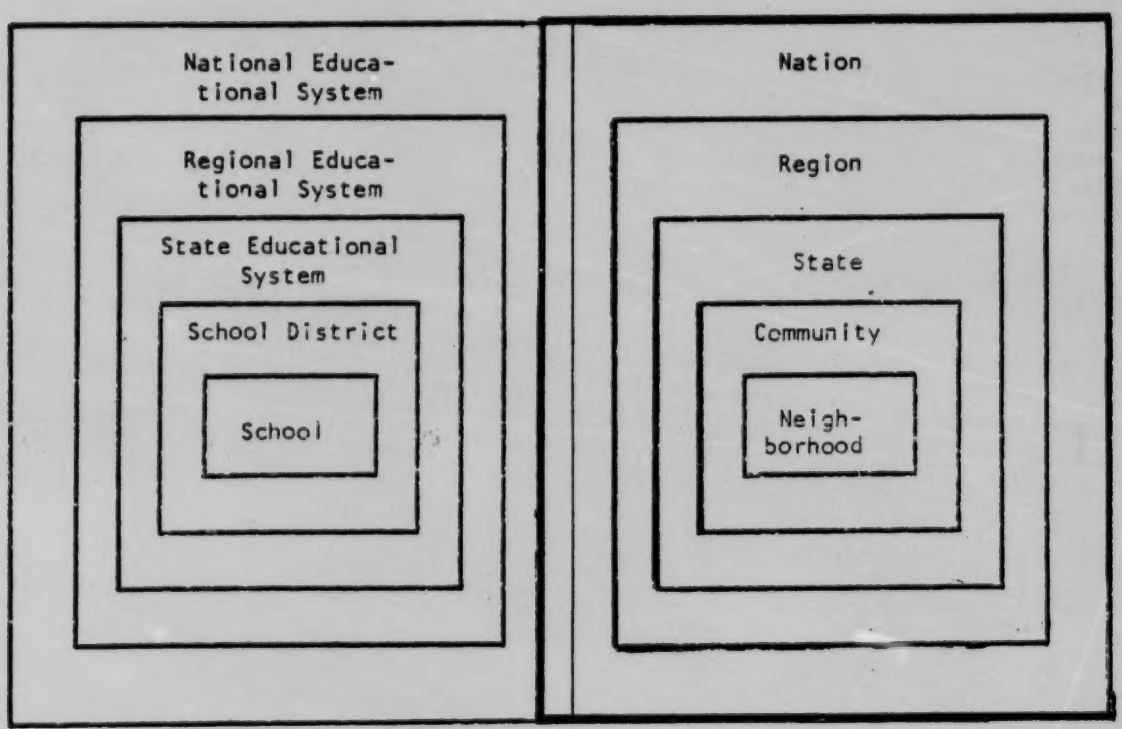
In the last few decades a number of approaches to understanding planned educational change have emerged. These approaches can be divided generally into two schools. The first advocates a basically logical, structural view of organizations, in which the change process is reduced to a simple, linear progression through defined stages. The second favors a much more complex, sociocultural view of organizations, in which the change process may move in a circular pattern of interrelated cause and effect. While the first approach is more static, viewing organizations in terms of their functions and formal structures, the second approach is more process-oriented, using "open systems" models to capture the dynamic interrelatedness of cultural, economic, and political forces influencing organizations in the real world.

Our analysis of PDC program implementation reinforces the dynamic, sociocultural approach. The events and actions that took place across the eleven sites over the seven years of project implementation could not be reduced to predictable linear phases, or explained by simple, unidimensional factors. While the structural, bureaucratic models provided some important insights into the implementation process, the perspectives provided by the sociocultural, open systems models had greater explanatory power. An organization defined as an "open system" is highly dependent upon its external environment as it engages in continuous cycles of energetic input and transformation of that energy within the system into a product, or output, which in turn re-energizes the system (Katz & Kahn, 1966). A school, for example, is an open system highly dependent upon its social and natural environment (local community, state and national government) for funding that will allow it to take in students (input), transform them and produce reasonably educated citizens (output). However, unlike private sector organizations, a school's funding is not dependent on the quality of its output, but rather on economic and political factors in its environment. Similarly, PDC can be viewed as an open system, dependent upon yet dynamically interrelated to the larger social organization of the school, and, like the school, dependent upon the external environment (ACYF) for continued funding.

Thus, adopting a systems approach, we have analyzed institutional change in PDC within two overlapping frameworks of educational system levels and sociocultural environment levels (see Figure 2). Following Herriott and Hodgkins (1973) we use five of the six levels of the educational system (school, school district, state educational system, regional educational system, and national educational system) and five of the six levels of the sociocultural environment (neighborhood, community, state, region, and national society), excluding the sixth level, civilization, since it is not relevant to this study. For analytic purposes we will discuss each level separately, while recognizing the interpenetration of events across levels. Activity in the innermost levels

Figure 2

Educational System Levels and Sociocultural Environment Levels



will reverberate in the outermost levels. Hoffman (1981) used the metaphor of "nests of Chinese blocks," suggesting the basic notion derived from Herbert Simon that "any activity in one of these levels will obviously be operating simultaneously in at least one other" (1952).

Causality in such a systems approach is most accurately viewed as nonlinear, in that circuits are continuously interactive and recursive, with influence flowing back and forth within and between levels. With regard to PDC, the sociocultural and educational systems into which the PDC program was thrust reinforced as well as occasionally competed with each other, producing complex influences and constraints on the project, but the project in turn exerted its own influence on its surrounding environment. Our findings regarding influences on implementation are consistent with the conceptual model of PDC (in contrast with the linear analytic model), described previously as a dynamic cycle of continuous interactions (Rosario, Berrueta-Clement, Halpern & Morris, 1980). Figure 3 illustrates the conceptual model of PDC.

Before attempting to trace the interpersonal, organizational, and sociocultural influences that molded each site's unique program, we will review our findings regarding the patterns of component implementation that occurred across sites and characterize the levels of implementation each attained. The reader interested in a comprehensive discussion of the measurement/analysis of Guideline implementation including a technical explanation of our data reduction techniques is referred to Volume I, Chapter III, "PDC's Influence on Local Institutions."

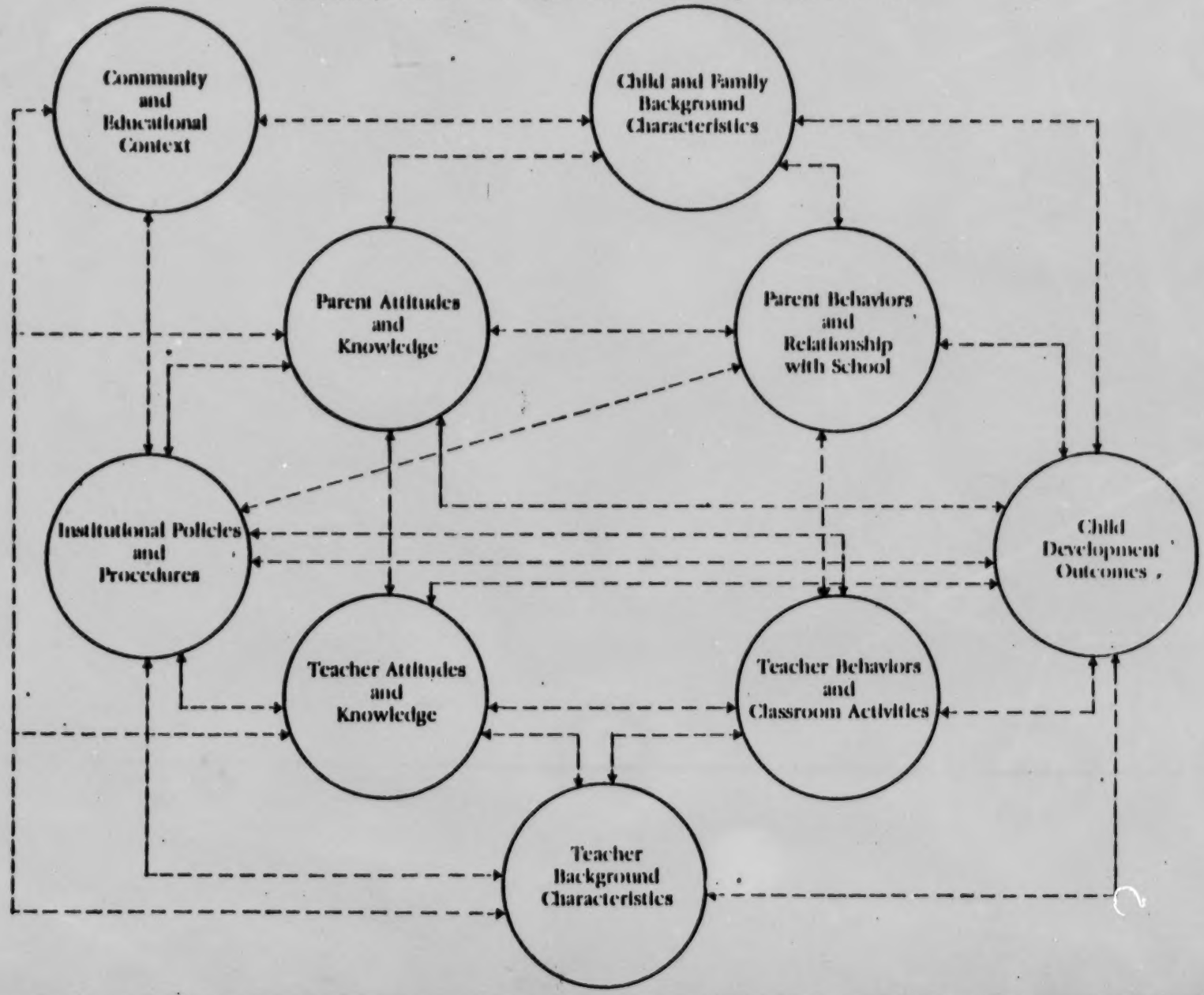
We have taken the approach of studying fidelity to the innovative idea, rather than focusing on amount of change in institutional processes. This approach was dictated by the initial evaluation design and by the amount and kinds of data that the Budget Bureau (now OMB) allowed us to collect across sites as baseline measures at the beginning of the evaluation. Thus, our approach is consistent with the 1977 Implementation Study produced at the end of Phase I (Smith, et. al.), which acknowledged that relatively modest levels of implementation may have represented substantial change within some sites, while high levels of implementation may have represented rather little change in other sites. Our interest, however, is in what conditions contributed to or constrained high levels of implementation, not directly in amount of change.

IMPLEMENTATION FINDINGS

The discussion that follows is concerned primarily with reporting across sites the level of implementation of major program components defined by clusters of PDC Guideline requirements, or subcomponents. The six major program component areas considered in this evaluation are:[1]

[1]Specific requirements of the seventh component, Training, were allocated to the other major components to which they seemed operationally to belong.

Figure 3
The Conception of Developmental Continuity Assumed In PDC


Community and Educational Context
Child and Family Background Characteristics
Parent Attitudes and Knowledge
Parent Behaviors and Relationship with School
Institutional Policies and Procedures
Child Development Outcomes
Teacher Attitudes and Knowledge
Teacher Behaviors and Classroom Activities
Teacher Background Characteristics

- Administration
- Education
- Bilingual/Bicultural/Multicultural Education
- Education of Handicapped Children
- Parent Involvement
- Developmental Support Services

Specific requirements within component areas are termed subcomponents, and these subcomponent ratings are presented by site in Appendix D for the interested reader; they will be considered here only as necessary to elucidate component-level and overall findings.

Program Implementation Across Sites

The summary of levels of program implementation that follows is based on the analysis of PDC's influence on institutional processes and procedures reported in Volume I, Chapter III. The ten sites that remained in the longitudinal sample of the impact study were included in these ratings. However, information from all eleven sites is included in the analyses of factors influencing the process of program implementation presented in the discussion.

- Overall levels of implementation by PDC projects were at best "high to moderate" (2 sites) and typically "moderate" (8 sites).

- PDC projects generally exhibited inconsistent levels of implementation both across components at particular points in time and within components across time.

- Levels of implementation among PDC projects generally declined from the beginning to the end of the demonstration period.

- Overall implementation of PDC requirements (or, in the case of Comparison schools, of institutional features analogous to those required in PDC) appeared to be higher for PDC than Comparison institutions at only four sites--substantially higher in two of these sites and marginally higher in two others.

- The two PDC projects that achieved the highest overall levels of implementation (sites 8 and 10) were matched in this accomplishment by local Comparison schools and centers. In site 8, the similarity of PDC and Comparison institutions resulted from direct intervention by the local school district administration who in 1978 adopted the basic PDC model for use in all elementary schools. In site 10, the similarity of PDC and Comparison institutions was the product of more complex forces.

- Three component areas were found to be better implemented in PDC than Comparison institutions at a majority of sites: Administration, Parent Involvement, and Developmental Support Services. In no case was a component implemented less well in PDC than Comparison schools.

Inconsistency at the component level arose both from variance across subcomponents and from variance across time. Post hoc analyses indicated that at six of the eight sites for which implementation data were available in both 1976-77 and 1980-81 overall implementation ratings declined from spring 1977 to spring 1981. Table 3 illustrates the decline. (These analyses were accomplished by separating out the 1977 and 1981 subcomponent ratings that were comparable from the overall ratings based on the Guideline requirements outlined in Volume I, Chapter III, Table III-2.) It is important to point out, however, that for one of these sites (8), the decline in implementation at the Administration component was, in fact, partly an artifact of using the Guidelines as the standard of measurement. In this higher implemented site responsibility for certain components was placed with staff at the district level to facilitate implementation in all district schools. Therefore, lacking a staff person at the program level at that site did not imply neglect or de-emphasis as it did in some other sites.

The lack of substantial programmatic differences between the majority of PDC and Comparison institutions suggests that many institutional features of the PDC model were already present in local schools in at least embryonic form or that they were introduced during the period of this evaluation. For example, parent involvement was already required in 1974 by Title I and Follow Through programs, while the mainstreaming of handicapped children was mandated nationally in 1978. At least one state (site 1) introduced the requirement of parent and teacher involvement in School Improvement Committees that were similar in principle to the PDC Councils during the course of PDC. And the joint curriculum planning within and across grades implied by PDC was an integral part of the Individually Guided Education (IGE) model that was gaining popularity at the time.

Patterns of Component Implementation Across Sites

Although the median overall component ratings were all "moderate" with one exception (see Table 2), a simple assignment of weights of "three" to "high," "two" to "moderate," and "one" to "low" component ratings reveals differences among components in level of implementation. The component receiving the highest ratings across all ten sites aggregated over the four years for which data was available was Developmental Support Services.

Separating out the 1977 and 1981 ratings from the aggregated overall ratings (see Table 3) shows that Developmental Support Services was also the highest implemented component at both those time points (first and last fully operational years). The component receiving the lowest ranking overall showed similar consistency at both time points--Bilingual/Bicultural Education. In fact, only two of the components changed their relative standings over the years--Education and Handicapped traded places, with Education moving down and Handicapped moving up.

These findings tend to confirm previous interpretations that the major influence of the PDC program was in the educationally peripheral area of support services. One possible explanation for this pattern of component implementation is that enhancement and extension of medical, health and social services to children could occur through the efforts of the required half-time Support Services coordinator without necessitating any changes by teachers or in traditional school norms. The component calling for the greatest changes in teachers' behaviors, and most frequently in later years without program level staff responsible for it--adopting a bicultural/multicultural, if not bilingual, approach to all classroom activities--was the component least well implemented. (Of course, other factors also contributed to the lack of success of the Bilingual/Bicultural component, and these will be discussed later.)

Site Level Program Implementation Over Time

If relative level of component implementation remained fairly consistent over time, relative site ranking did not. Some sites changed substantially, with the top-ranked site in 1977 changing most: it fell to next to lowest place in 1981. However every other site moved either up or down as well (see Table 4).

It seems clear from this shuffling of sites' relative standing between 1977 and 1981 that getting off to a good start was not necessarily a predictor of successful program implementation in the long run. Although many factors contributed to each sites' ultimate implementation ratings, one organizational similarity characterized the top five of the eight sites in both 1977 and 1981--each had adopted the ECS program model, in which Head Start classes were located in the PDC elementary school building. Of all ten sites included in the institutional impact analyses, in 1981 the top six were ECS sites, while the bottom four were PSL. Moreover, the only two sites (5 and 6) that did not decline in overall implementation between 1977 and 1981 were ECS sites (see Table 3). Possible reasons for the relative success of the ECS sites over PSL sites in long-term program implementation will be examined in succeeding sections.

Table 2

PDC Project Guideline Implementation Level

Site	Component Area						Overall Rating
	Administration	Education	Bilingual/Bicultural/ Multicultural Education	Education of Handicapped Children	Parent Involvement	Developmental Support Services	
Site 1	M/L*	M/L*	L*	L	M*	M*	M/L*
Site 2	M*	M*	M/L*	M	M*	M*	M
Site 3	M*	L	L	H	M*	M*	M*
Site 4	M*	M*	L†	M*	M*	L*	M
Site 5	M	M	L	M*	M	M*	M
Site 6	M*	M*	M*	L*	M*	M*	M
Site 7	H*	M*	M*	M*	M*	H	M
Site 8	L	M*	H	H	M*	H	H/M*
Site 9	M	L	L†	H*	M*	M*	M*
Site 10	H	M*	M/L	H	M*	H	H/M*
Overall Rating	M	M	M/L*	M*	M†	M*	M

* Indicates high variance in underlying ratings.
† Indicates no variance in underlying ratings.

Table 3

Level of Implementation in 1977 and 1981

Site	Level of Guideline Implementation in PDC 1977							Level of Guideline Implementation in PDC 1981[1]						
	Component						Overall	Component						Overall
	1 Adm.	2 Ed.	3 Bl/Bc	4 Hn.	5 P.I.	6 D.S.S.		1 Adm.	2 Ed.	3 Bl/Bc	4 Hn.	5 P.I.	6 D.S.S.	
1	M	M	H	H	M	H	H/M*	M/L*	L	M/L*	L	M	L	M/L / L*
2								M	H/M*	M/L*	M/L*	M	M	M*
3	H	H	H	H	H	H	H	L	L	L	H	M/L*	M	M/L / L*
4	M	M	L	M	L	M	M	M/L*	H	L	M	M/L*	M/L*	M/L*
5	M	H	L	M	M	H	M*	M	M	L	M	M	H/M*	M
6	L	H	M	M	L	H	M*	M/L*	M	M	L	M	H	M*
7	H	M	L	H	H	H	H	M	M/L*	M	L	M	H	M*
8	M	H	H	H	H	M	H	L	M	M	H	H/M*	H	H/M / M*
9								M	L	L	M	M/L*	M	M / M/L*
10	H	H	H	M	H	H	H	H/M*	M/L*	L	H	H/M*	H	H/M*
	18	21	17	20	18	22		13	14	11.5	16	15	19	

[1]1981 ratings use subcomponents corresponding to the subcomponents that constituted the 1977 IRI scales.

*Indicates high variance in underlying ratings.

Table 4

Sites Rank Ordered by Implementation Levels in 1977 and 1981

Rank	1977	1981	
	8 Sites	Same 8 Sites	All Sites
1	3	10 & 8	10 & 8
2	10	5	5
3	8	6 & 7	2
4	7	4	6 & 7
5	1	3	4
6	5	1	9
7	6		3
8	4		1

DISCUSSION

The PDC demonstration program was planned as a skeleton framework for innovation that individual sites would "flesh out" in accordance with their local needs. The complexity and enormity of the task was underestimated, perhaps because it was viewed as a technical undertaking (rather than a fundamentally interpersonal one). The Guideline requirements acknowledged what was then known about engineering change within schools--that is, the Guidelines required some local problem-solving to promote program ownership, broad teacher, parent and community participation in program decision-making to generate local support, and specific training content and procedures to support and guide the curriculum changes--but they underestimated the degree to which the essential changes being called for were interpersonal, cultural, and interinstitutional, as well as intrainstitutional.

The heart of the PDC program, its unique core, was the requirement woven into all components that each site establish a coordinated and continuous PDC program from Head Start through grade three. Operationalizing this requirement meant that new interpersonal relationships had to be established between Head Start and elementary school teachers, Head Start and elementary school administrators, and between all of these and program staff. Additionally, the PDC requirements for within grade and across grade planning and coordination called for substantive changes in teachers' traditional isolation from each other within buildings. Although their functional autonomy was grounded in the culture of the school, it lacked some of the interinstitutional nuances coloring the isolation of Head Start from elementary teachers.

Accomplishing the interpersonal, cultural, and interinstitutional changes in the gulf between Head Start and the schools required more than the establishment of interinstitutional program advisory councils. All

of the cultural differences (discussed in a later section) between the schools and Head Start had to be mediated interpersonally, as well as interorganizationally, because the causes of and expected changes in the existing interinstitutional no-man's land involved individuals, group norms and practices, and interinstitutional relationships. Elementary teachers, carrying all the cultural baggage of their institution, saw themselves being asked by PDC to adopt educational values and behaviors grounded in the culture of an outside institution, Head Start. As one Head Start director primarily responsible for bringing PDC to her community expressed it, "It wasn't up to us [Head Start] to change, it was up to them to change." The expected changes also involved revisions in one institution's professional mystique and prestige, relative to another's. Additionally the innovation involved political and environmental influences, the effects of which were understandably underestimated.

For discussion purposes we will present the factors influencing the implementation process at each level of the educational and cultural system beginning with the interpersonal relationships within the school (micro level), moving to the group level of social, cultural and educational features of the PDC program/school interface, and then to the social, cultural, and educational features of the program/community interface (macro level), and so on. However, as Blalock (1967) has pointed out, "One of the most challenging problems that continually arise in almost all substantive fields within the social sciences is that of how one translates back and forth between the macro level, where groups are the unit of analysis, and the micro level, where the focus is on individuals." This has certainly been the case in analyzing the implementation process in PDC. However, in order to understand the process of change in PDC we have had to tease out each level in turn, treating each as a separate unit of analysis. We remind the reader that this linear analytic process reduces very complex, interactive forces to artificially distinct phenomena that are, as we noted earlier, dynamically related.

Interpersonal Systems Within the School

In this section we will discuss the interpersonal systems nested within the school that influenced PDC. "Interpersonal systems" refers both to the somewhat subjective, personal qualities of individuals that strongly color interpersonal relationships and to the fact that these characteristics are relational. We will examine first the leadership of the principal, a key figure in educational change efforts in schools, and then the leadership of the PDC coordinator. There is little agreement on what constitutes effective leadership, and our evidence is not systematic enough to tease out all of the qualities that contribute to effective leadership. However, various Head Start, school and program personnel all referred to such qualities as "decisiveness, not afraid of controversy, having high expectations," and "commitment." The ability to inspire the trust and confidence of teachers and other administrators, as well as the ability to manipulate the bureaucratic system also seemed to be crucial.

Principal's Leadership

The support of building principals has long been acknowledged as critical to the implementation of innovations from inception to dénouement, but such support may not be sufficient to assure long-term success. (All PDC

principals initially supported the entrance of PDC into their schools to a greater or lesser degree, and some were very committed to it as a way of solving educational needs.) The critical element seemed to be something closer to what might be called "leadership style."

The importance of principal leadership in bringing about institutional change and shaping effective schools has been rediscovered lately (Chesler, M., et al., 1975; Schmuck, R., et al., 1975). As Crandall (1982) recently observed, "strong leadership produces organizational change" and "principals, not teachers, are the critical link to school-level outcomes." Our data reinforce this view. Although principal leadership style per se was not a focus of the PDC evaluation, the theme emerged spontaneously. For example, in two sites where PDC program staff who had been with the project from its beginning had seen principals come and go, the early principals were described as having relatively low-key management styles that worked well until the advent of PDC. However, some teachers in their buildings, who were initially enthusiastic about PDC, "burned out" sooner or later from a plethora of tedious committee meetings where nothing got resolved, as well as from additional work demands, demands that came in some cases from PDC coordinators more intent on meeting deadlines than in building ongoing teacher support for the life of the project. In such sites, principals with a relatively "laid-back" style, who failed either promptly to rein in the coordinator or to resolve teacher dissension revolving around the demands of the innovation, found themselves constantly having to attend to an unhappy teaching staff. Their styles were apparently not suited to managing the tensions caused by the innovation, or to intervening quickly and decisively in conflicts that ensued among school staff and between program and school staff; consequently, staff hostility focused on the innovation and did not fade away over time.

In one PDC site, in fact, the one rated lowest in implementation of the 10 sites in 1981, dissension over PDC continued until a new principal arrived in the last program year. His leadership style was decisive and proactive, contrasting dramatically with the previous principal's. He was described by teachers, administrators, and PDC program staff as "turning the school around," and as "unifying the school under his leadership." In other words, he constructed a consensus. In this site the PDC program had been described by evaluators over the years as operating almost independently of the school, and as never being "owned" by teachers or principal. It now became inseparable from and indeed synonymous with the school, because, according to the new principal, "nothing happens in my school without my say-so."

In two other sites, each with two PDC schools, one school achieved a much higher level of implementation than the other. In both sites the variation in implementation can be attributed to a difference in the principals' leadership styles and expectations--they made it clear that they expected active teacher participation in PDC, the other principals did not. In addition, one principal with the more highly implemented program was described by the site visitor as "less afraid of potential conflicts or of taking stances that may be controversial."

The issue of principal leadership is important because in "loosely coupled organizations" such as schools,[1] organizational mechanisms of coordination are relatively weak and cultural mechanisms of coordination are relatively strong. The notion "cultural mechanisms of coordination" refers to coordination based on commonly held norms, or on shared assumptions and understandings (Rosenblum & Lewis, 1981). Effective linkage in such loosely coupled organizations requires consensus (Etzioni, 1964) and, therefore, effective mechanisms for resolving conflicts and disagreements are particularly important. Although in loosely coupled organizations "zones of tolerance," or ranges of acceptable behavior (see, for example, Rosario & Lopes, 1980) may be fairly wide, allowing substantial latitude in behavior before negative feedback is activated to bring actions back within the acceptable range, these zones are often based on implicit agreements. Innovative projects that stimulate some actors to violate the zones may require innovative mechanisms that facilitate explicit negotiations to reconstruct agreements and, if possible, consensus between actors. Innovations in schools may also require a leader to act as the catalyst to create the shared understandings or cultural linkages between staff.

The degree of consensus and the success of conflict resolution mechanisms operating between various actors within the school, and between the school and its surrounding sociocultural environment, seems to have been very important in PDC. Even where overt conflict may not have been an issue, it is clear from this perspective that bringing about a change in PDC actors' values or behaviors required a continuous process of negotiation, or more drastic actions, and the role of leadership in these negotiations or other moves was critical. In retrospect, viewing the institutional leader as someone to be changed rather than as someone orchestrating the change may have been a serious flaw in the design of PDC and other innovative programs.

In fact, principal leadership style was important not only within the PDC school, but also in the context of the total system and the various levels operating and surrounding the PDC school. As Crandall points out, "at the individual level, support and help from principals sustains the teachers who are changing. At the school level, the principal's leadership, the principal's management style, and help from the external agent are the three demonstrable causes of organizational change" (1982). At the school level, the PDC principal's willingness to use the power associated with his or her role to make clear and lasting decisions, and to put together a supportive, cohesive staff seemed vital to effecting change. For example, many principals across sites solved problems of teacher resistance and hostility to the new project by transferring those negative teachers to other buildings. In one site with three PDC schools, a new principal was assigned to one of the schools during the 1978-79 school year. This principal was another one described as having "turned the school around," so that by 1981 her PDC school was the best implemented of the three. She was a former Follow Through director, committed to the basic principles of PDC, who, in effect, demanded that her teachers "shape up or ship out." Some shipped out, and she handpicked the replacements to match PDC's philosophy. The other two principals at this

[1] A loosely coupled system according to Weick (1976) is one in which actors or subsystems have a high degree of functional autonomy.

site seemed reluctant to use this strategem with the result that energy and attention continued to be directed at coping with teacher resistance to the detriment of program progress.

The issue of staff replacement--that is, transferring staff who resist the innovation and hiring replacements with the kinds of backgrounds predisposing them to be more positive toward the innovation--versus staff development--that is, providing training programs designed to change attitudes and teach new approaches--is an important one to researchers, planners and implementors of education innovations. Researchers have pointed out the impracticality of adopting the replacement technique on a districtwide basis (particularly under current economic conditions), as well as the disadvantages of possibly producing two cultures among teachers (Corwin, 1973). PDC's approach to program implementation relied upon staff development, but this approach does not work, no matter how persuasive the training, if teachers will not attend the inservices provided. In PDC, principals who expected teachers to attend training sessions and support the new program or to transfer, prevented the development of strong negative teacher reactions to the innovation. Once those attitudes crystallized, however, principals who still did not utilize their power to encourage transfers seemed to have continuing problems.

Examining teacher turnover from an analysis of teacher background characteristics reported on the Teacher Interview over the last three program years reveals that at seven out of the ten sites PDC teachers had taught in the PDC program significantly fewer years than Comparison teachers had taught in their schools (see Table 5). This is not surprising given that the program had only been in operation for seven years, and many of the teachers had been teaching much longer than that. However, in two sites teachers in the PDC schools had also been there significantly fewer years than teachers in Comparison schools. One of these sites was the lowest ranked site in 1981, plagued with continuing dissension which teachers tried to escape by requesting transfers, and the other was the second lowest ranked site in 1981. (In this latter site there was little evidence of teacher turnover due to dissension within the PDC schools, but rather evidence of turmoil within the district, with schools being closed due to declining enrollment. Teachers are often shuffled around in such circumstances.)

While we know anecdotally that in many PDC schools principals "handpicked" staff to match their own and PDC's philosophy, principal choice of staff is usually allowed or not allowed systemwide, so one would expect no within-site PDC-Comparison differences in whether teachers were recruited or involuntarily assigned to their schools. However, quantitative data from the Teacher Interview shows that in two sites there was a significant PDC-Comparison difference, with PDC teachers more often invited or recruited to their schools. Thus some PDC principals did tend to use the staff replacement approach. Although staff replacement and staff development are not necessarily mutually exclusive, and in fact should be complementary, relying primarily on staff development in educational innovations is probably unrealistic.

Table 5

Differences in Background Features Between PDC & Comparison Teachers

Site	1	2	3	4	5	6	7	8	9	10
Max n	20	27	75	55	36	28	46	42	51	28
No. Yrs. Current School	P<C .045		P<C .008							
No. Yrs. Current Program	P<C .025	P<C .030	P<C .0001	P<C .086	P<C .013		P<C .033	P<C .019		
(1) Assigned (2) Invited: School					P>C .029				P>C .038	
(1) Assigned (2) Invited: PDC	P<C .077	P<C .005				P<C .018	P>C .098	P>C .081		

Coordinator's Leadership

There is some evidence, albeit not systematic nor in as much depth as we would wish, that, as with principals, a strong, proactive leadership style worked as well for PDC project coordinators. The site ranked highest in implementation in 1977 (3) was one of the Preschool Linkage sites, all the rest of which were ranked lower than the Early Childhood School sites. But this site had an extremely dynamic project coordinator, with strong ties to Head Start, who alone among PSL coordinators negotiated an advantageous change for the project within the district bureaucracy by moving it to the department of the assistant superintendent of instruction. After this coordinator left in 1978 component implementation levels declined, and by 1981 the site was ranked next to lowest. Other cultural and organizational factors in addition to her departure contributed to the site's decline, as we shall see in following sections, and her strong style may, in fact, have glossed over resentments at the time that would have inevitably surfaced later on; however, while she was there, her effective leadership was indisputable.

In another site, consistently highly ranked, the PDC school's longtime curriculum advisor described the coordinator's "commitment, strength, and determination that the program succeed [as] its greatest asset." Her style was quieter and less outspoken than the coordinator described above, but evidently no less effective.

There is little agreement on what constitutes effective leadership, and our evidence is not substantial enough to tease out the various factors or patterns of factors contributing to effective leadership of program coordinators. However, the more successful PDC coordinators evidenced a sensitivity to established role relationships and lines of authority existing between the actors within the building(s), and had the ability to adapt to and work within them. One apparently effective coordinator who was on the same level administratively within the district as the principal described her technique of working with the principal as "sweet-talking" him, that is, using persuasion and tact, rather than power.

Principal and Coordinator Relationship

The kind of organizational and interpersonal relationship that was established between the principal and the PDC coordinator had a direct influence on the PDC program implementation process. The four sites, all of which were ECS, where the PDC coordinator originally functioned as an assistant principal directly accountable to the principal (and usually with authority over elementary teachers) had higher levels of implementation in the final year than those sites where the PDC coordinator was not directly responsible to the building principal.[1] Sites where principal-coordinator lines of authority were not formally legitmated and the principal was not responsible for PDC, all had lower implementation levels in the final years. Thus, in the better-implemented sites, the PDC program was the responsibility of the principal.

However, interpersonal relationships could and did influence these organizational arrangements considerably. In two of the four sites described above, for example, where coordinators were formally accountable to principals, friction developed in the early years between the coordinators and teachers, and in at least one of these sites, between the coordinator and principal as well. These two sites were actually among the less well implemented sites in 1977. When these coordinators left, the sites' relative implementation level improved, so that by 1981 the two sites were among the top four.

In the seven other sites, PDC coordinators were not organizationally responsible to building principals; sometimes the position was placed under the Head Start director, sometimes it was on a par with the Head Start director and principal. But within the building, the coordinator's relationship and accountability to the principal was never formally addressed or defined. The relationship between principal and coordinator had to be individually negotiated by each of the people involved, and when principals were replaced, it had to be renegotiated. In these sites this put the burden for generating both principal and teacher support for the PDC program on the coordinator, requiring of him or her a high degree of interpersonal as well as administrative skill. Consequently, only one of these sites was among the higher ranked sites in 1981.

The disadvantages of a lack of formal lines of accountability from the PDC coordinator to the principal can be seen in the site rated lowest in overall program implementation. Although the PDC coordinator at this site seemed to perceive the principal as having responsibility for the PDC project and himself as under the principal (in recognition of the authority structure of schools), the PDC organizational chart showed that the PDC coordinator was on an administrative level equal to rather than under the principal, a view confirmed by the grantee, central office administrators,

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[1] In two of these sites the coordinator was also the principal by 1981, and in the other two the coordinator was an assistant principal or functioned as an assistant principal, with responsibility over teachers. In a fifth site PDC was completely reorganized in 1978, with new principals, a new PDC coordinator and new Head Start director. A prominent feature was the explicit assignment of authority over the program, including Head Start teachers in the building, to the principals.

and principal. Moreover, the coordinator was responsible to the director of compensatory education rather than to the same administrator as the principal. The result of not having a clear chain of accountability from PDC coordinator to principal was that neither person took responsibility for the PDC project, each saying, in effect, that it belonged to the other. In other words, no one "owned" it.

In PDC, it did not seem to be the existence of a legitimated role for the PDC coordinator within the building that contributed to higher levels of implementation, as much as the explicit responsibility for the project resting with the principal. Thus, placing responsibility for innovative programs such as PDC squarely on the shoulders of the building principal may facilitate program implementation, since it encourages the exercise of principal leadership.

Relationships Among Coordinator, Principal and Teachers

In PDC, attempting to look at the principal-coordinator relationship without taking into account teacher-coordinator relationships is impossible. Coordinator interactions with teachers and teachers' subsequent reactions inevitably involved principals, even if the mutual teacher-coordinator reactions were positive, since the system of teacher-principal interactions is closely linked.

Of the six sites with the highest rated implementation levels in the final year, four of the PDC coordinators initially had formal authority over building teachers. In one of these highly rated sites, a new coordinator eschewed that formal authority over teachers, preferring to enlist their support voluntarily. In the other sites where coordinators were not formally accountable to the principals, neither did they have any legitimate authority over teachers. Thus, interpersonal qualities of leadership and persuasion had to be called upon to enlist teachers' support and involvement in the new project. However, whether coordinators had formal authority over teachers or not, it seemed that coordinators had to earn teachers' respect to be effective. As we saw above, simply having formal authority over teachers was not enough, since in two of the ECS sites friction developed between teachers and coordinators, impeding program implementation. This friction was not limited to ECS sites, however, as the lowest ranked site, which experienced longstanding program-teacher friction, was Preschool-School Linkage.

In two of the sites in which interpersonal relations between teachers and coordinators became strained, the coordinators' background may have contributed to the situation. In those two sites neither coordinator had taught at the early childhood level, so that they lacked initial and perhaps continuing credibility with teachers. (A Head Start teacher in one site and the PDC principal in the other both spontaneously alluded to this deficiency in the coordinator's experience as affecting teachers' interactions with them.)

Teacher-Teacher Relationships

The PDC innovation was more complex than most, because in addition to the introduction of a new program and staff into the ongoing relationships of the schools was the requirement that teachers behave in a new way toward a heretofore rather separate group--the Head Start teachers. We will have much more to say about this in the section that follows when we discuss the next level of analysis, that is, group interactions that involve political and cultural features. However, while we will discuss these interactions at the group level, it must be understood that these cultural differences and similarities obviously are mediated interpersonally, and influence interpersonal relationships.

Sociocultural Influences on PDC Within the School

Evidence has accumulated from the Rand study and others, including our own analyses of PDC, that influences on the implementation process could not be accounted for by simple, functional models of organizations or by purely logical, linear models of change. Neither could they be understood by examining interpersonal relationships only. Instead, it seems useful to view educational organizations as dynamic, complex social systems governed by norms and traditions and values (Gross et al., 1971, Sarason, 1971) and influenced by the surrounding sociocultural environment.

In this section we will discuss the within-school sociocultural systems that were involved in this innovative program. That is, we will examine group relationships, focusing primarily on the PDC Guidelines, which exemplified the values, assumptions, and practices of one group, Head Start. We will see how these Head Start-inspired program requirements complemented but often conflicted with the sociocultural system of the second group, the elementary school staff.

The Culture of Head Start vs. the Culture of the Elementary School

The PDC Guidelines made explicit apparently universal values which ACYF program designers believed contributed to more effective schooling--for example, educating the "whole" child, bringing parents into the classroom and into school decision-making processes, being sensitive to and supportive of other languages and cultures, providing effective training, and mainstreaming handicapped children. In fact, most progressive educators do subscribe in theory to these principles. But, when operationalized, some of these values were found to be in conflict with elementary school values[1] and internally inconsistent. To understand the ways in which the

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[1]As March (1972) has pointed out, schools' goals and values are often better discerned, even, or especially by insiders, from examining what they are doing, rather than from what they believe their a priori goals are.

PDC program was contained by school norms and values, it is important to lay out PDC's values. Levels and patterns of component implementation will be explained in large part from conflict or consistency with these values.

The values of the PDC program were straightforwardly egalitarian, grounded in the belief that elementary schools can provide equal opportunities for all children to achieve their potential by coordinating their educational experiences and by systematically accommodating to their individual differences. Underlying this egalitarian approach was the implicit acceptance of the importance of school achievement. Although PDC's expressed objective was to enhance children's social competence through greater continuity in home-school and preschool-school experiences, the ultimate, hoped-for outcome of the program was improved school performance. The program shared this value orientation with the schools, although the schools and PDC differed considerably in the preferred means to achieve the desired end. And it was in these differences over means that the values of PDC and the values and norms of the schools came into conflict.

Head Start emphasis on the "whole" child. The explicit values of the PDC program were derived from Head Start philosophy and practice. The underlying assumption was that if Head Start's philosophy and practice were pushed up into the elementary schools, Head Start children's presumed gains might be maintained. Thus, if PDC Guidelines, based on Head Start principles, were to be fully implemented, the elementary schools would have to do more changing than Head Start centers. For example, the requirement that public schools be concerned with the "whole" child certainly did not contradict espoused educational philosophies and values at the early elementary level. But, the expectation that this concern be "active" and manifested in an integrated program, rather than in ad hoc responses to individual children, entailed substantive change in existing elementary programs. Although the required development of a continuous curriculum from Head Start through the early elementary years, appeared to offer elementary schools an opportunity to significantly extend their influence downward, the educational thrust of the PDC guidelines actually was more reflective of Head Start's philosophy and practices.

This shift in direction caused problems among elementary teachers who were philosophically opposed to the PDC approach. In 1977 the PDC evaluators found that "where prior philosophies or programs were similar [to PDC's], implementation levels were higher; when they conflicted, the levels were lower" (Smith, et al.). Some schools already had educational programs similar in some respects to PDC, either by virtue of their having been a Follow Through school or from principal and teacher preference, but where programs were dissimilar from PDC, or, perhaps not clearly defined, teachers were expected to change substantially to adopt a consistent, coordinated individualized educational approach.

Role of school council. Another example of change expected on the part of the elementary schools was the area of school governance and the proposed "PDC Council." Head Start staff were accustomed to working under the direction of Head Start policy councils, which included parental and broader community representation. Public schools, however, were quite unaccustomed to such arrangements, and school district administrative systems were not designed to accommodate formal advisory inputs from such councils, much less their management of school programs. Legally, of course, school governance was the responsibility of elected school boards and could not be assumed by a school policy council. As a result, the initial definition of the PDC Council caused conflict in some sites between those conscientiously attempting to fulfill Guideline requirements in terms of the Council's power to decide matters and local personnel who saw the Council only as advisory. (In sites where conflict was minimal, the Council had been almost immediately defined as advisory.) In every site the strict Guideline interpreters had to accommodate to the political realities of local public school governance.

PDC Councils thus became advisory to the schools in areas that directly involved school functioning, but in PDC program areas such as choosing the content of parent workshops, they were decision-making. Principals did, in fact, accept parents' and teachers' input, expanding the range of those whom they allowed to offer suggestions regarding school functioning.

This compromise exemplified both the phenomenon of program containment by the schools' normative practices, and mutual adaptation on the part of both schools and the PDC program. In other words, the thrust of the PDC program regarding decision-making was blunted and ultimately restricted by the local schools' norms, but within those norms there was a certain amount of latitude (called "zones of tolerance" by Rosario & Lopes, 1980) that permitted the schools to adapt somewhat to program demands. The term "mutual" perhaps overstates the reciprocity of the process: the strength of the culture of the schools resulted in less adapting of the school to the program than the program was forced to adapt to the schools--thus, the notion of the school "containing" the program.

In terms of the types of participants on the Council, PDC brought about some real change, so that the composition of the Councils came to resemble the composition of Head Start policy councils to a much greater degree. More parents were involved, including those representing previously under-represented constituencies, such as Head Start parents and those from local community agencies. Although in some sites formally designated representation did not always mean active participation or attendance at Council meetings (see Appendix D), in most sites Councils became much more broadly representative. This type of change, however, did not involve a conflict in PDC-school values. Since the Councils were only advisory, opening up their membership involved no real risk or challenge to existing political relationships.

Head Start emphasis on parent involvement. Although requirements for participation by parents had some precedent in regulations governing Title I and other federally funded programs already operating in most participating elementary schools, PDC Guidelines generally required more central involvement of parents in educational decision-making than did other federal programs, even going so far as to suggest that parents might influence curriculum within the classroom. Head Start programs had long offered parents opportunities to participate both in educational settings and in the creation of these settings; however, the creation of educational settings in elementary schools had always been the prerogative of professional educators. Teachers' and administrators' traditional definitions of their roles ran counter to sharing their professional activities with lay people. Thus, as a result in large part of teachers' established assumptions regarding the appropriate role for parents, parents participated generally on PDC Councils, but tended to be less involved in the more specialized curriculum subcommittees and educational task forces.[1]

PDC also expected schools to open up their doors to parents as volunteers or paid aides in the classroom. While this was accepted practice in Head Start, it was not in elementary schools. Teachers articulated on the Teacher Interview many legitimate disadvantages to themselves and to their children of greater parent involvement, reinforcing the traditional exclusion of parents from classrooms. However, this is an area exemplifying the "mutual adaptation" process characteristic of educational innovations, in that PDC teachers, as measured in the last three program years on the Teacher Interview, appear to have done more to promote parent involvement in the classroom than Comparison teachers at six of ten sites (Volume I, Chapter V). Either PDC teachers were able to expand their "zone of tolerance" relative to the established norm of privacy of the classroom, or teachers who came to participate in PDC already had a wider zone of tolerance for having other adults in their classroom, and PDC provided the institutional support for it.

Head Start emphasis on training. Another area that PDC Guidelines strongly emphasized was training--its content, frequency, and targeted participants. Like Head Start, high priority was placed on inservice training that would contribute to participants' professional development, but such training was also seen as a critical mechanism for socializing teachers in the goals of PDC, that is for bringing about changes in teachers' attitudes and behaviors and for maintaining those changes. Training content was to focus on such topics as the principles of child growth and development; the psychological, social, and health needs of the child; decision-making processes; and the needs of special children. The Guidelines specified that training was to be frequent and ongoing, and to be targeted at parents as well as teachers and administrators.

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[1]However, it must also be pointed out that due to a national trend for school districts to centralize curriculum decision-making and standardize goals and materials across schools, teachers themselves had much less opportunity to participate in committees that reviewed or revised the curriculum.

The public school system's attitude toward inservice training, in contrast to Head Start's and PDC's, was that training was not important as a means of professional development or even socialization. Rather, elementary teachers were expected to enroll in graduate courses if they wanted professional development, and socialization into the norms and values of the school was expected to take place informally. The system-sponsored inservice training sessions that typically were infrequently provided were related to subject matter or teaching techniques, and parents were never included. The ongoing, child-focused type of training targeted to include parents that characterized Head Start and PDC programs was a radical departure from tradition for elementary school teachers. Therefore, the finding that the training subcomponents of each of the six major PDC components were not well implemented is hardly surprising. Although the training was designed to bring about change, it represented an obvious change itself, inconsistent in content and delivery with the customary inservice training embedded in the culture of the school.

Mainstreaming handicapped children. For most elementary school teachers the PDC requirement that handicapped children be mainstreamed to the extent possible represented a departure from what they were accustomed to in their classrooms, and promised to affect their teaching activities significantly. For Head Start teachers, on the other hand, mainstreaming was already a fairly standard procedure. Again, change was expected more on the part of elementary teachers than Head Start, and in an area in which resistance might be expected. However, strong reinforcement for the change appeared in 1975 at the national level of the educational system with the passage of P.L. 94-142, which mandated that mainstreaming be fully in place by 1978. The cumulative strength of national, state and local laws requiring expanded services to handicapped children resulted in the PDC handicapped component being the second highest implemented of the six components. In the few PDC schools where mainstreaming did not become implemented, the cause could not be attributed to teacher resistance. Rather, the decision occurred at a higher level: district policy, not teachers, determined the placement of children either in regular classrooms, or in special facilities.

Comprehensive support services. Another identifiably Head Start-derived feature was the PDC requirement that comprehensive support services--medical, dental, nutritional, mental health, and social--be extended into the elementary schools. This was a concept that encountered no existing elementary school counter-value. Teachers believed in and supported efforts to improve the health and emotional well-being of their students because a better learning environment was created. Some schools have been moving very gradually in this direction for years, adding social workers, school psychologists, speech therapists and other resource personnel to the traditional school nurse.

The fact that Developmental Support Services was the highest implemented component overall across sites should therefore come as no surprise. Culturally, teachers and the value system of the elementary school supported it. Operationally, its implementation demanded no changes in teacher behavior. And organizationally, a required half-time coordinator was responsible for it. (This was the only component with such stipulated responsibility.)

In one site the level of implementation of this component declined between 1977 and 1981 from "high" to "low." Inspection of the annual ratings shows that the level of implementation was lower in 1981 than even the preceding year primarily because the school nurse funded by PDC to take on the additional responsibility for Support Services was shifted off PDC money entirely, eliminating her position as Support Services coordinator. She no longer had the time to carry out all of the coordination and "over and above" PDC-inspired activities that she had previously done, such as immunization follow-ups and more comprehensive screenings. This decrease in implementation due to loss of key staff illustrates the importance of added staffing to implement innovations. However, even more interesting from the standpoint of understanding the PDC implementation process were the underlying reasons that brought about the elimination of the position.

When the Support Services coordinator took on her duties in 1978, she introduced into the school the Head Start practice of "family style eating," whereby children eat family style within their classrooms, rather than in the cafeteria. She enlisted the support of some of the teachers, managing to implement the program in about half the classrooms. Those teachers who chose not to try the idea were not neutral, however, they were strongly opposed to it. In the process, the Support Services coordinator assumed supervisory authority over the two cafeteria workers who were necessarily involved in any change in food service delivery. Dissension over the idea continued among teachers, with the principal trying unsuccessfully to mollify both sides.

When a new principal was assigned to the school in the summer of 1980, several aspects of the situation caused him to eliminate the program. First, it was clear to him that the coordinator had overstepped the bounds of her position when she assumed supervisory power over the cafeteria workers. She had, in effect, exceeded the zone of tolerance surrounding her role as school nurse by becoming, as he saw it, inappropriately involved in the authority structure of the school. Second, although three teachers who were transferred out over the summer were among the most negative toward family style eating, and although there was enough support for it among remaining teachers--as well as for him personally--that he could have reinstituted it, he perceived it as conflicting with the major mission of the school, which was to improve children's academic achievement. Family style eating was logistically more difficult and took longer than cafeteria lunches, and the additional time was seen as more profitably spent on academics than on providing a socialization experience. This was a clear example of culture conflict, between Head Start values and the elementary school's.

Thus, it appeared that cultural dynamics, involving zones of tolerance and different institutions' educational values, were at the root of the abolishment of the role of Support Services coordinator. (And the role was not reinstated in the last program year because expanded health services were not a priority for the new principal, illustrating once again the importance of principal support for the project.)

The Cultures of Head Start and the School Mediated Interpersonally

Since these institutional changes proposed by PDC were to be implemented interpersonally, it is important to examine how elementary teachers and administrators, in general, perceived Head Start teachers prior to the introduction of the PDC innovation. A variety of our data sources indicate that Head Start teachers were virtually unknown to elementary teachers prior to PDC. Even when Head Start classes were housed in the elementary school building, reportedly the two groups of teachers did not interact. Their schedules were different, their support service personnel, such as psychologists and speech therapists, were different, and inservice training was held separately.

Culturally, what elementary school teachers did know about Head Start teachers, they sometimes did not like. In one fairly conservative western site, for example, elementary school teachers generally belonged to the community's dominant and very influential religion, were middle-class, politically conservative, white, and relatively prosperous. In this community, when people had financial or other needs, they turned to their church rather than to the federal government for assistance. But Head Start teachers at this site were of different religious and cultural persuasions, had less income, and, in the minds of the elementary school teachers, represented a government welfare program. This site was probably the most extreme case of cultural discontinuity between Head Start and elementary teachers, but in a southern site, where Head Start teachers were black, elementary teachers were white, and the Head Start children were all seen as black and poor--a large cultural gap existed as well. In most of the other sites elementary teachers were more apt to reflect the ethnic distribution of their neighborhood, so that the teaching staffs were not so different in cultural terms.

Professionally, elementary teachers did not hold Head Start teachers in high esteem. This was not so much a reflection on Head Start as it was an extension downward of an existing educational hierarchy of prestige: The highest prestige and professional respect has traditionally gone to university professors, while the lowest prestige has traditionally been accorded elementary teachers, with kindergarten teachers ranking lowest within that group. Preschool and Head Start teachers are considered off the bottom of the scale in terms of professional prestige. In fact, Head Start teachers were described by elementary principals involved in PDC, at best, as "socializing children," at worst, as "just babysitting." Thus, when the impetus for educational change was perceived within elementary schools as coming from a group lacking a professional image, a group, in fact, toward whom school personnel felt professionally superior, and in some sites, racially, religiously and socially superior, then the interpersonal obstacles to institutional change were high.

Incentives to Change

Substantial incentives, both personal and organizational, were needed to induce actors in both groups to change. At this point, we will examine the incentives perceived at the personal level before returning to the organizational level incentives. The incentive system model, based on Barnard's work of 40 years ago (1938), emphasizes the importance of the individual within organizations and suggests that understanding the system of

incentives important to teachers is fundamental to understanding organizational behavior (Clark, 1981). The incentive system approach helps explain why teachers are often viewed as resisting change. For example, the rewards for adopting new curricula or techniques in terms of higher student achievement or more effective classroom management may not be immediately clear to teachers, while the discomforts and frustrations in terms of additional meetings, paperwork, and coordination (which often typified PDC in the early years) would be immediately apparent. As with many other educational innovations, there was no evidence a priori that PDC would facilitate children's learning or help with classroom management. Thus, the merit of the innovation was not immediately obvious, and in addition, in the beginning it demanded a lot of extra work in the form of curriculum development or revision. Then, too, as we illustrated in our earlier discussion the personal and political incentives for working with Head Start teachers to learn their educational approach were not there initially for elementary teachers. And when a certain amount of vagueness in the early years of program operation clouded the nature of the innovation (in some sites teachers thought they would be receiving additional materials, or be paid for attending inservice training and then found that they would not), feelings of betrayal and hostility toward the project raised the barriers to change.

Some coordinators, sensitive to the importance of offering rewards for teacher participation, attempted to "sweeten the pot" by providing teachers with little extras such as lunches for attending training sessions. In some sites, resources were eventually allocated for new materials and additional aides, rewards that were tangible to teachers. However, there was little evidence that teachers initially derived any sense that PDC, or any parts thereof, would help them do a better job of teaching or would help children learn more. The merit of the innovation, in other words, was not demonstrated to them at the outset, so the most basic incentives for teachers to change in most sites were missing.[1]

Organizational Facilitators of Change

Intrinsic, psychological motivators were not the only incentives for change, and since these were generally lacking for many teachers, other within-school organizational forces must be examined to understand the change process. Several organizational facilitators of change helped account for some of the change that occurred in PDC. As we noted earlier, some PDC components could be implemented independently of teachers. In fact, the program component that reached the highest level of implementation, across and within sites, was Support Services which did not require change in teacher behavior, or even teacher involvement.

The comprehensiveness of the PDC model, comprising six different components, and the loose-coupling of some of those components to others allowed sites to concentrate their energies selectively without jeopardizing

[1]Teachers will also adopt something new if they have to--that is, if their principal, or the district, state or national officials demand it, as with P.L. 94-142, the Education for All Handicapped Children Act.

the total program. The Support Services and Handicapped components were functionally autonomous from the other components (although they did overlap to some degree with each other in such areas as screening). Parent Involvement was somewhat less independent of the other components, in that it interconnected with Support Services in certain respects, and with Education, Administration, and Bilingual/Multicultural in many respects, but had other areas that were completely unrelated. The Education, Administration, and Bilingual/Multicultural components were more tightly coupled than the others, but except for Bilingual demonstration sites where Education and Bilingual/Bicultural at least initially were closely tied, these components were independent enough of each other that if one component could not be well implemented, the others could. In one of the highest rated sites, for example, Administration was rated "low," without affecting the implementation of the other components.

Another organizational facilitator at the school level was the presence of paid program staff whose responsibility it was to implement their components. Two positions in addition to the coordinator were required--a half-time Support Services coordinator, and a part-time Parent Involvement coordinator. The presence of these component coordinators ensured a measure of accountability and uniformity in implementation that the other components lacked. (These program-level staff were not always necessary, however, as in site 8, where the district had adopted the model in all its elementary schools, and staff held responsibility for some components at the district level.)

A third organizational facilitator was clearly spatial propinquity. Researchers analyzing the process of organizational change have examined such linkage dimensions as physical closeness and found that as spatial dispersion (the distance of units from a central location) increases, the difficulty of coordinating and influencing the units rises as well (Louis & Sieber, 1979). ECS sites, where Head Start classes were in the PDC elementary school, were more highly implemented at the end of the project than PSL sites, where Head Start classes were geographically separate. Logistically, all aspects of PDC program coordination were made easier in ECS sites by the placement of Head Start within the natural boundary of the school.

In fact, it was those features unique to PDC involving coordinating Head Start and elementary school programs that accounted for the higher levels of component implementation in ECS sites. Table 6 reveals that in components 2 through 6 (Education, Bilingual/Bicultural-Multicultural, Handicapped, Parent Involvement, and Developmental Support Services) the required subcomponent that dealt with a coordinated approach was rated more highly in ECS sites than PSL. Additionally, in component 1 (Administration) four of the eight subcomponents that dealt with policies and procedures designed to ensure coordinated Head Start through grade three program management--PDC staffing, PDC Council activity in program governance and Council scope of representation, and effective communication with staff--were all rated higher in ECS sites. In some ECS sites PDC staff were paid out of both Head Start and PDC funds, eliminating the need, for example, for two separate parent involvement coordinators. Since two separate buildings were not involved, this kind of staffing arrangement and funding was possible.

Table 6

Level of Subcomponent Implementation by Program Model in 1981

1. Administration

	A. Staffing	B. Component Responsibility	C. PDC Council Responsibility	D. Council Responsibility	E. Council Communication with Parents	F. Council Communication with Staff	G. Training in Policy- and Decision Making	H. Training in PDC Goals and Requirements	Overall
ECS	M/L	M/L	H	H	M	H/M	M	L	M
PSL	L	L	M	M	M	M	L	L	M/L

2. Education

	A. Coordinated Curriculum	B. Internal Assessment	C. Curriculum Refinement	D. Diagnostic System	E. Training in Individual-ization	F. Training in Child Develop-ment	G. Training in Health and Safety	Overall
ECS	M	H/M	M	M	M	L	M/L	M
PSL	L	M	L	L	M/L	L	M	L

Table 6 (cont.)

3. BL/BC/Multicultural

	A. Coordinated Approach	B. Training in Needs and Methods	Overall
ECS	M	L	M/L
PSL	L	L	L

4. Education of Handicapped

	A. Coordinated Program	B. Early Diagnosis	C. Special Materials & Struct. Changes	D. Main-streaming	E. Annual Survey	F. Training in Special Needs and Methods	Overall
ECS	H/M	H	H	H	H	L	H
PSL	M	H	H/M	H/M	M	L	H/M/M

5. Parent Involvement

	A. Coordinated Program	B. Parents as Resource in Classroom	C. Parents as Volunteers and Aides	D. Training in Child Develop-ment	E. Training in Out-of-School Support	F. Training to work with Teachers	Overall
ECS	H/M	M	H	M	M	L	M
PSL	M/L	M	M	L	L	L	M/L/L

Table 6 (cont.)

6. Developmental Suport Services

	A. Coordinated Program	B. Initial Screening of Children	C. Mealtimes for Learning	D. Communication with Parents	E. Familiarization of Parents	F. Continuity of Record-Keeping	Overall
ECS	H	H	M	L	M	H/M	H/M/M
PSL	L	M	L	L	L	M	L

Although by definition one building was involved in ECS schools and two were involved in PSL schools, a naturally occurring distinction between ECS and PSL sites was the number of target schools involved. In only one of the six ECS sites was there more than one PDC school--in that site there were two. This meant, of course, that staff in all but one ECS site could devote all their energy to establishing the program in one building. By contrast, in three of the five PSL sites, multiple schools were involved; two sites had three PDC schools, and one site had two. When multiple Head Start centers were added to these multiple PDC schools, PDC staff in one site had to focus on five buildings, in another, four buildings, and in the third, three. The site which underwent the largest relative decline in implementation ratings between 1977 and 1981 (from first to ninth of ten sites) was the PSL site with the greatest number of buildings involved in the project. This slide seems to be related to the enormous logistical problems staff encountered in trying to establish the PDC program in five buildings.

Sociocultural and Organizational Influences Within the Community/District

We turn our attention now both to the level of sociocultural systems surrounding the PDC program/school and to the educational level corresponding to that system, the local school district. Cultural and political forces within the community affected PDC implementation processes, as did political and organizational factors within the school district bureaucracy. In this section we will first look at the local cultural and political forces that made a difference in program implementation levels, and then examine the organizational features of program placement within the district hierarchy that seemed to affect PDC implementation.

Sociocultural Forces Within the Local Community

The PDC model exemplified certain Head Start practices and values that, in addition to running counter to the elementary school norms discussed previously, clashed with local cultural values. In some sites, these programmatic values also conflicted with each other. For example, a critical strategy of the PDC program for accomplishing home-school continuity was through parent involvement in all aspects of the program and school--in governing the PDC program, in developing and reviewing curriculum from Head Start through grade three, and in working, volunteering, and observing in the classroom. This strategy exemplified PDC's egalitarian approach to education, affirming the hitherto neglected importance of parents. In PDC, parents were to play a major role on the PDC Council, within the school, and as educators of their children at home. A seemingly complementary facet of PDC's egalitarian value system was its emphasis on adopting a culturally pluralistic educational approach. PDC programs were to weave a multicultural thread into each component area in order to build on the strengths of the ethnic values and traditions within local communities.

Unfortunately, when operationalized, these two program requirements conflicted, because aspects of the parent involvement component clashed, with the values of the local communities. For example, calling for parents to be actively involved in program governance and substantive decision-making conflicted in some sites with the requirement for multicultural sensitivity, in that the Hispanic parents' traditional attitude of respect for educators made them very reluctant to, as they saw it, interfere in educational matters. They perceived their proper role as deferring to teachers, not as consulting with them. Program attempts to change their role were, in fact, culturally insensitive, conflicted with ethnic tradition, and, of course, were met with resistance from parents. Program staff were faced with the impossible task of implementing two incompatible requirements. Most chose to be sensitive to the value system of their community and not insist on parent participation in school decision-making. As a result, this area of parent involvement was not as highly implemented in the Hispanic sites as in the other sites.

A related conflict surfaced during program implementation between the Multicultural requirements for sensitivity to local group's mores and values and the Bilingual/Bicultural requirements in the three Bilingual/Bicultural demonstration sites. In these sites, Hispanic parents did not place as high a priority on their children's maintaining their native language and culture as did the national and regional ACYF staff. In fact, as early as September 1974, in one site local program staff became aware of such widespread community opposition to the bilingual requirements that they administered a test of language proficiency to 600 kindergarten children. Since only 5% of the children tested were found to be dominant in Spanish, staff decided then to adopt a "language retrieval" curriculum rather than the full "language maintenance" approach called for in the PDC Guidelines. However, this decision was made well <u>after</u> the site had been designated a Bilingual/Bicultural demonstration site.

This kind of sequence of activities in educational organizations where the solution is chosen before the problem is identified has been termed "organized anarchy," in which "the minimal conditions necessary to support rational bureaucratic theory are missing <u>but in which organized activity is occurring</u>" (Cohen, March, & Olsen, 1972). The process of decision-making in such organizations is arational according to Cohen and his colleagues, since these organizations are characterized by:

1) unclear preferences/values--the organization discovers its preferences by reflecting on its actions (which was the case in this site);

2) unclear technology--the organization survives and reproduces although its own technical knowledge and processes are not understood by its members (a common criticism of schools in general); and

3) fluid participation--members drop in and out over time (teacher, principal turnover).

Perhaps the most telling characteristic of this arational decision-making process is that decisions and choices search for problems rather than vice versa.

In the second Bilingual/Bicultural site the lack of community support for the bilingual approach did not surface until local testing revealed that children in the PDC school fared worse than other district children in reading and language skills. The innovative bilingual approach was the obvious culprit, and so district administrators shelved it. (The decision was made easier because of a concurrent suspension of state bilingual monies.) Both of these sites lost their "bilingual demonstration site" status because of lack of local school and community support. The third site, on the Texas-Mexico border, retained its demonstration site status, but when testing showed PDC children doing less well than other children, it likewise de-emphasized the bilingual program reverting to its former "transition" approach rather than continuing the full "maintenance" approach.

The bottom line in the elementary schools, as we observed earlier, is child achievement. In the three sites discussed above, when information accumulated that PDC children were performing less well on district tests than their peers in other schools, the cause was attributed to the bilingual program, both by parents in the community and by teachers and staff at all levels of the local educational system. A thorough-going sensitivity to the Hispanic parents' desires for their children to achieve in school and be successful in the dominant culture thus conflicted with the demands of PDC's Bilingual/Bicultural component. Community and school system achievement-oriented values won out, effectively containing the thrust of the Bilingual/Bicultural requirements in the demonstration sites.

Other sites besides the bilingual sites clearly had difficulty implementing the multicultural requirements. As noted earlier, this component was the lowest rated of all components in terms of overall implementation, both in 1977 and 1981. Again, local cultural dynamics seemed to play a major part in containing this particular component. One site rated "low" in implementation of this component was culturally, racially, and religiously homogeneous. The site apparently felt little press for a multicultural approach because there were very few minority children in the schools. In addition, achievement in the basics was a high community and district priority, and a multicultural approach did not apprently contribute to its attainment. Moreover, the curriculum was highly centralized, leaving little possibility for innovative approaches. In fact, because of existing community and school district values and, perhaps, resources, only two PDC components were strongly emphasized in this site, Parent Involvement and Handicapped. The Handicapped component was emphasized because of the excellent hospitals and facilities for the handicapped in the city, which attracted families to the area. Parent Involvement was emphasized because it reinforced the volunteerism that was highly valued in the regional religion. Thus, the dominant religious and cultural values that pervaded the community and schools contained the Head Start influence in PDC and molded the shape of the program in that site.

The Education component was also vulnerable to local cultural and school district practices and values. Although this component was the second highest implemented in 1977, by 1981 its relative standing had declined to a tie for third. As described in a previous PDC report on institutional impact (Rosario, et al., 1980) there was a trend in many sites toward centralizing curriculum decision-making. Six PDC programs reported that their PDC-developed curricula had been modified by district moves to standardize curriculum across all elementary schools. One site (5) exemplifies what happens to an innovative curriculum that differs from school district norms and practices, especially when those norms and practices are guided by standardized test scores under conditions of high student mobility within the district.

The PDC school in this site adopted a new individualized curriculum when the program began. Children received a comprehensive set of diagnostic tests to determine their individual placement in the curriculum. This testing demanded what came to be an inordinate amount of teacher time due to high pupil transfer rates (for desegregation purposes) between the PDC school and two sister schools. The high level of student mobility also meant that teachers had to spend a great deal of time translating the individualized PDC record-keeping system onto the district forms for outgoing students. Incoming as well as outgoing children were experiencing discontinuous curricula. However, the critical factor occurred when PDC children were found in the spring of 1978 to have the lowest scores in the district on a districtwide reading assessment measure. The PDC principal decided then to return to the districtwide curriculum, dropping the individualized but time-consuming PDC curriculum.

As other researchers have observed in regard to another individualized educational innovation, "the pressures from (school district) norms and practices are strongly mediated by standardized tests and by the impact on teachers of students transferring from other schools in the district" (Gaynor, Barrows, & Klenke, 1980. The researchers concluded that the higher the rate of student mobility, the larger appeared the discrepancies between the innovative curriculum and the school district's curriculum. Put another way, the high rate of student mobility and the low districtwide test scores shrunk the zone of tolerance that existed for innovative curricula. It was probably also the case that economically, standardized curricula were cheaper in terms of textbook acquisitions; politically, they minimized the individual differences between elementary schools, and educationally, such curricula reduced the discontinuities that students experienced when transferring between schools. Whatever the cultural, economic and educational reasons, the effect was primarily the same: less tolerance for the non-conforming curriculum like PDC's, and less freedom for individual schools to modify or shape the district's curriculum.

Local economic trends also had a strong influence on program implementation. Reduced local budgets, together with cuts in state and national funding all contributed to a constriction in programming. Only the essentials could be maintained, so that where in the past a cushion might have absorbed some of the more popular aspects of the PDC program, in recent years that cushion had shrunk. Coupled with a poor economy,

particularly in the industrial midwest and northeast, were declining enrollments and millages that repeatedly failed, all of which resulted in cutbacks in teaching staff. PDC teachers, who were often younger and newer to the district, were "bumped" by more experienced teachers from other schools who had little incentive to become involved in an innovative program. This made program implementation in these sites very problematic. One midwestern site was particularly hard-hit by the depression in the automobile industry that contributed to repeated millage failures, half-day sessions one year, and high teacher turnover particularly in the PDC school.

Organizational Influence of the Local District Hierarchy

The structural factors influencing the implementation of PDC at the district level appeared to be related to whether the program was tightly or loosely coupled within the local educational system. This notion of "loose-coupling" (Weick, 1976) has been one of the most illuminating systems constructs applied to educational organizations. Subsystems or parts of educational systems are seen as more or less functionally autonomous rather than tightly interdependent, such that actions or changes in one subsystem often have no influence on other subsystems. While organizations (and parts of organizations) may vary in the degree to which they are coupled, schools generally are seen as "archetypal loosely coupled systems" where units are largely independent and individuals function with little or no supervision (Clark, 1981). Our finding regarding the importance of the tightness of the coupling seems to be an extension of the finding at the program/school level that higher implementation was related to PDC's being more tightly coupled to the school by virtue of its being the responsibility of the building principal.

The degree of coupling within the district varied primarily by program model. As we observed previously, the ECS sites were all more highly implemented than the PSL sites, and one characteristic of the PSL sites was that the PDC program staff were not responsible to the same central office administrator as the PDC principals throughout the seven years of the project.[1] In PSL sites the PDC program was the responsibility of a director of federal programs or of a similar central office staff position, while building principals were responsible to a director of elementary curriculum, or similar central office line position. In fact, in two PSL sites where PDC and Head Start were responsible directly to the grantee/delegate agency in a separate city (the school district was not the delegate agency), no one at the district level was formally responsible for PDC--the most extreme example of loose coupling between PDC and district. It is probably not accidental, however, that in the higher implemented of these two sites, an administrator in a line position was very supportive of PDC.

[1] In one site the PDC coordinator managed in the early years to transfer the PDC program from the supervisor for alternative programs to the supervisor for elementary curriculum. When she left, PDC was transferred back to the original supervisor, which made it impossible for a subsequent PDC curriculum innovation to be legitimated since it was no longer within the purview of the curriculum supervisor.

In contrast, in all of the ECS sites, PDC staff and the elementary school principals were responsible to the same district administrator. In fact, in all but one of these sites, the PDC coordinator was either responsible to the building principal, or the coordinator's role was assumed by the principal in the middle years of the project. In the one case where the coordinator was neither the principal nor responsible to the principal, she was administratively on the same level as he, and both were responsible to the director of elementary education. (See Figure 4)

In one of the two highest implemented sites overall (8), the organizational coupling of PDC within the district was very tight, perhaps because it was a very small district. In any case, the PDC teachers, program staff, and Head Start teachers were all accountable to the director of instruction through the PDC principal. There was not even the divided loyalty due to dual accountability of Head Start teachers to both principal and Head Start director, because the director of instruction held the position of Head Start director as well in the early years.

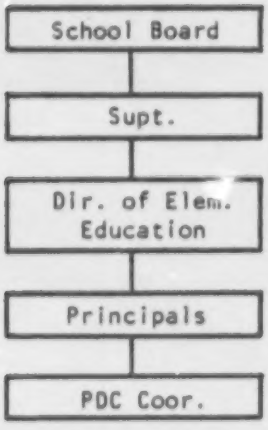
Site 2, a site that was fraught with conflict in the early years (but ranked fourth of ten sites in level of implementation in 1981) adopted a similar organizational structure when reconstituted. The program almost terminated in late 1977 when both the PDC coordinator and Head Start director resigned and the city became grantee/delegate agency for Head Start and PDC. However, the school district's assistant superintendent for curriculum and instruction took over direct responsibility for PDC, and in effect, tightened the coupling of the program to the district. He did this by assigning two new principals to the PDC schools who supported his educational philosophy, by participating in the choice of the new Head Start director (as elected chairperson of the governing body of the county Head Start program he had that power) and by choosing the new PDC coordinator. By virtue of his elected Head Start position and his formal position within the district, direct lines of responsibility for PDC and Head Start converged at his office, which also helped in resolving longstanding curriculum disputes between Head Start and the elementary school. With the installation of the new principals, PDC coordinator, and Head Start director, all of whom were loyal to him, the assistant superintendent had clearly established a coalition[1] within the educational system that enabled him to shape and contain the PDC program within elementary school norms and practices. He also was able to expand the schools' zones of tolerance in the direction of PDC Guidelines by the establishment of early childhood units within the schools, which closely linked Head Start and kindergarten teachers.

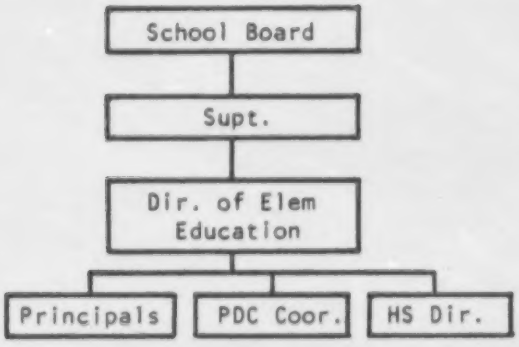
[1]Lambright, Hennigan & Hayes (1980) have pointed out the importance of coalition-building (the process of uniting individuals or groups behind a common goal) to the successful implementation of innovations in loosely coupled organizations like schools.

Figure 4

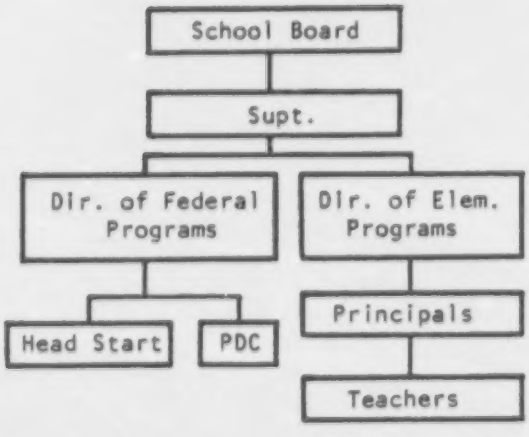
PDC Program Responsibility Within District

1. ECS Sites





2. PSL Sites



The importance to the rebirth of PDC of the structural tight-coupling of the program to the district through the creation by the assistant superintendent of a coalition within the educational hierarchy cannot be denied. However, the extent to which a broader coalition, including school, community and Head Start representatives, did or did not play a hand in the assistant superintendent's decision to revive PDC is unknown. It is known that there was enough community support for the program for him to decide to take on the challenge of resurrecting it.

Substantial community support was also systematically built for PDC in the other tightly-coupled site described above. A public relations campaign in the press and other media generated public visibility and respect for the program, and the PDC school became a "showcase" within the district. Thus, the coalition of support established within the district hierarchy by the director of instruction was reinforced by solid support from the local community.

Organizational Incentives

Earlier we discussed the lack of intrinsic incentives for teachers to participate in such innovative programs as PDC, but noted that there were often strong organizational incentives for districts to adopt innovations. In PDC there were both political and opportunistic incentives for districts to implement the program. Politically some sites wanted to demonstrate to the community their progressiveness in providing innovative educational programs. Other sites were more interested in bringing the additional $100,000 to their districts. But one site chose PDC as its response to a court order to desegregate two adjacent school districts (8).

This site planned from the outset to institutionalize the program in all of its elementary schools after it was successfully piloted in the PDC school. District officials consistently demonstrated their belief in the basic premises of PDC, adopting a comprehensive educational curriculum, Individually Guided Education (IGE) that was compatible with the goals of PDC and reinforced many of the institutional changes called for by PDC, such as shared school governance in Program Improvement Committees and coordination and teaming within units. The district commitment to PDC's goals and philosophy clearly extended beyond the opportunistic desire to use PDC funding to support existing programs. Obviously this commitment contributed to the high level of implementation attained by this site throughout the years of the PDC project, and contributed to its successfully transferring the program to all district elementary schools in 1978.

The institutionalization of the PDC concepts in all district schools was unique among PDC sites. Not every subcomponent requirement within each Guideline component was equally implemented, but each school had its own full time nurse, acting as a support services coordinator, each school had a bilingual/bicultural curriculum (transitional, not full maintenance), each school had parent advisory committees and shared parent involvement coordinators from their categorical programs (Title I, Title VII, ESAA and Head Start), and each school had adopted the IGE curriculum with team teaching and Program Improvement Committees.

Influences from the State Educational System

Impacts on PDC program implementation as a result of state mandates were most evident in two sites (4 and 10). In the first site, a state-mandated curriculum replaced all local curricula in 1980-81. The state specified a unified curriculum with grade-level objectives for K-3 throughout all elementary schools. The required screening and assessment of all entering students was consistent with PDC objectives, but the subsequent placement of children in one of three types of educational programs was not.

In the second site, the state in 1978-79 assumed responsibility for approximately 85% of each school district's budget and at the same time instituted a requirement that all students master a set of Student Learning Objectives. Although teachers at the site expressed the opinion that the individualized curriculum they had developed for PDC was thoroughly institutionalized within the school, the necessity of teaching to the mandated SLO's made them fearful that they would not be able to sustain the level of individualization. The impacts of the change in school financing at this site were even more far-reaching. Uniform teacher salaries were in the offing, and block grants were being used to combine funding for special education, bilingual education, and social services, which resulted in cutbacks in those areas in the PDC site. Inservice training was virtually eliminated as a result of both state cutbacks in funding and the district contract with the union that limited the number of hours staff could be involved in training without extra pay. The extra pay was simply not available. Thus, although the site was highly rated in terms of PDC program implementation in 1981, the outlook for continuation was bleak.

Influences from the Regional Educational/Cultural Systems

There was little evidence of influence on program implementation originating from the regional educational system or from the regional sociocultural environment. In one site the ACYF regional office intervened to bring the program into compliance with the Guidelines, but it was acting as an extension of the national office, rather than representing a uniquely regional viewpoint. At this site, the program staff had chosen to emphasize health and nutrition at the expense of a comprehensive bilingual/bicultural program (see Rosario & Wacker, 1981, pp. 14-21, for a more detailed treatment). The regional office disagreed with this emphasis and ultimately the site lost its bilingual/bicultural demonstration site status. Basically, however, distinctive influences on PDC, either educational or cultural, originating from the regional level were not discerned.

Influences from the National Educational/Cultural Systems

The PDC program originated at the national level in Washington, D.C., in the offices of ACYF. It was an attempt by officials in the federal government to improve the educational experience of poor children across the country. Organizationally, the loose coupling of local programs to the national office appeared to dilute the potential influence of the project. Since demonstration programs such as PDC do not have the clout of legally mandated programs, such as P.L. 94-142, they must rely on effective communication processes to create the common understandings that can translate planned programs into operational programs. These communication processes include close monitoring of and responses to program progress reports and high quality technical assistance that reliably reflects national objectives.

Although PDC's national-to-local program communication and monitoring system was not included as a focus in the evaluation, assessments of the system were conveyed to us by PDC coordinators in the process of summing up what they had learned over the years in PDC. Many coordinators reported that the direction and guidance they received from the national office was inadequate. Because program Guidelines were intended to be merely a framework for innovation and calculatedly vague, local staff were dependent for feedback on their interpretation of them from the national office and from those designated to provide them with technical assistance. Turnover almost every year in project directors and thus lack of conceptual ownership created problems in communication from the national to the local level. Lacking clarification, local project staff felt the Guidelines were too vague and insufficiently specified.

In terms of technical assistance, many coordinators would have preferred more latitude in utilizing local resources (which many did anyway), rather than having to spend time orienting a new technical assistance consultant each year. Others reported satisfaction with the system, specifically with the consultants who came to their sites, but noted that their effectiveness varied from year to year, depending on the person.

During the final year of program implementation sites received no technical assistance from the technical assistance contractor due to problems within that agency.

Despite these problems most programs coped with the looseness of the communication and monitoring system, interpreting the Guidelines as they saw fit according to local needs, ultimately achieving moderate levels of implementation. When one site did diverge substantially from national intentions, negative feedback mechanisms were activated in the form of intervention from the regional office that resulted in its losing its bilingual demonstration site status, but remaining a PDC program. While divergence was not tolerated, however, low implementation was.

What seemed to be missing was a system of communication that would permit an information flow back and forth between local programs and the national office. Just as the implementation of the program required an ongoing process of communication between program and school personnel, a similar process of communication between local and national program personnel was necessary. Retrospectively, it appears that more frequent feedback and ongoing communication would have created clearer understandings on the part of local staff of national priorities and objectives--the "cultural linkages" that are necessary when structural, or organizational linkages are weak, as they were between the national and local levels in PDC.

SUMMARY OF CONDITIONS FACILITATING IMPLEMENTATION

Interpersonal Facilitators

At the interpersonal level two key factors that seemed to facilitate PDC program implementation emerged from our analyses. While the factors are noted separately for discussion purposes, it is important to remember that they interact and to some extent are confounded both with each other and with organizational arrangements. The two key factors are the following:

- strong principal leadership, committed to the program
- strong program coordinator, respected by teachers

A strong principal, committed to the innovation, was characterized as demonstrating leadership in ways that supported and validated the program, sometimes having to resolve program-staff conflicts in favor of the program. Such a principal also acted when necessary to develop a supportive teaching staff through encouragement of staff transfers and selective recruitment of new teachers.

A strong coordinator was characterized as able to work within the normative system of the school and to build teacher support for the program.

Sociocultural and Organizational Facilitators Within the School

At the sociocultural level within the school four conditions seemed to facilitate program implementation, all tending to suggest that an optimal degree of discontinuity between educational innovation and existing school program is actually rather small. The four conditions facilitating implementation are the following:

- innovation similar to educational philosophies or programs within the school
- innovation compatible with basic school norms and values
- innovation geographically and logistically centralized
- responsibility for program and coordinator formally assigned to principal

Higher relative levels of overall program implementation occurred both in the short and long runs in schools that already had embarked on educational programs similar philosophically to the tenets of PDC. For example, those schools that had previously implemented individualized curricula, such as IGE or Far West Lab's Responsive Environment model, or had initiated state or federal bilingual education programs, seemed to be able to build on them in directions compatible with the goals of PDC. An existing school philosophy already familiar to teachers seemed to form a solid base that supported PDC's development. Since many schools generally may accommodate teachers with wide diversity in teaching style and approach, the individualized, whole child emphasis of PDC seemed to demand substantial change on the part of at least some teachers in most schools, but where this approach was not new, implementation proceeded more smoothly.

The highest levels of individual component implementation occurred in areas that did not conflict with the school's behavioral norms and values. For example, the delivery of more comprehensive support services for children and their families did not challenge or interfere with existing school practices and required no behavioral change on the part of teachers. It could be easily added on to health and social services already provided by resource personnel such as the school nurse and school psychologist. In terms of administration, those administrative arrangements that accommodated to and were consistent with the traditional school power structure, that is, where the PDC coordinator was explicitly accountable to the principal, were more successful than arrangements where the coordinator remained outside the system and was only accountable, for example, to a Head Start director.

On the other hand components or component requirements that conflicted with school norms and values were not well implemented. For instance, the kinds of training sessions specified in the PDC Guidelines were foreign to teachers both in content and in process, since they were also to be directed to parents. Thus, this strategy for supporting change represented in itself too big a change from accepted regularities, and very little training occurred in the later years.

In sites where the innovation was geographically centralized, that is, Head Start contained within the elementary school building (the Early Childhood School model), implementation was higher during the last years of the program. Spatial propinquity of Head Start, school, and program staff seemed to simplify interactions logistically and encourage the maintenance of personal and institutional linkages that were developed initially. In fact, it was those linkage features, unique to PDC, involving coordination of Head Start and elementary school programs that accounted for the higher implementation ratings in ECS than PSL sites in the final program year.

A fourth factor, which was both interpersonal and organizational, was the formal definition and mutual understanding of the coordinator's role as responsible to the principal. This type of relationship seemed to encourage principal ownership of the program and thus more active support. It also may have reduced ambiguity among teachers as to the relationship of the coordinator and to the program to the school.

These findings suggest that the optimal range of discontinuity both programmatically and geographically between innovative model and school program may be relatively small and, in fact, analogous to the degree of latitude implied by the notion of "zone of tolerance" surrounding a behavioral norm (Rosario & Lopes, 1980). In effect, it appeared that those innovative practices that lay clearly beyond the norms and values of the school culture (outside the zone of tolerance) had little chance of successful implementation, but those practices and procedures that lay within a zone that was "sometimes acceptable" had a much greater chance of successful implementation.

Sociocultural and Organizational Facilitators Within the Community/District

Several sociocultural and organizational conditions within the local community or local school district seemed to foster PDC program implementation. They include the following:

- innovation compatible with community norms and values
- district norm of principal/school autonomy
- organizational tight coupling of PDC program to district
- external implementation incentives

The importance of the culture of the local community in shaping the levels and patterns of implementation in PDC were examined. To the extent that the PDC components conformed to or reinforced existing community values and practices, their implementation was facilitated.

A district-wide policy of principal autonomy in the development of educational programs seemed to contribute to the development of well-defined and consistent philosophies within individual schools. Presumably teachers in such schools had developed substantial agreement as to instructional goals and practices, which contributed to their ability to maintain their own educational curriculum and resist more effectively external pressures to conform to a standardized curriculum. In one such site (10) PDC teachers were fearful of ultimately having to bow to pressures to "teach to tests," but as of 1981 they were still holding firm. This district policy of strong, independent principals served to reinforce at a higher organizational level the exercise of principal leadership, noted as critical to successful program implementation at the interpersonal level.

Sites in which the PDC program was tightly coupled organizationally to the district hierarchy, by virtue of being the responsibility of an official who had authority over principals, seemed to be better implemented than sites in which the administrative linkage was looser. The ECS programs where PDC was ultimately responsible, either through a building principal (more frequently) or directly to an educational administrator in a line management position (infrequently), were better implemented at project end than PSL sites where PDC was responsible to someone in a staff position, such as an assistant superintendent for compensatory programs, or to no designated school administrator. Generally these organizational supports existed in ECS sites prior to PDC, which reconstituted established Head Start-school district relationships, but in one ECS site where they did not exist, the program ran into difficulties. To solve them, administrative relationships were reorganized in such a way that this type of tightly coupled program-district relationship was duplicated.

One site (8) in which program implementation was relatively high over time had the unique organizational incentive of having to respond to a court order to integrate two adjacent school districts. PDC was chosen by local school district officials as an effective way to begin implementation of the comprehensive education plan ordered by the court. PDC seemed to fit with their existing bilingual/bicultural needs and offered the district the opportunity to fully develop an appropriate curriculum within one school that then could be disseminated across all combined district elementary schools. While innovative program planners cannot always hope to place their programs in communities that have such strong external incentives for implementation, they can try to choose communities that have almost as serious a commitment to the innovation as a means of meeting local needs.

State Educational System Facilitators

State educational requirements for more comprehensive services to handicapped children facilitated implementation of the PDC handicapped services component. (These state requirements also were reinforced, of course, by the federally-mandated P.L. 94-142.) State resources for bilingual education programs also facilitated implementation of the bilingual/bicultural education component in the early years, but when state monies were eliminated, local programs were also cut back.

National Education System Facilitators

Two factors at the national level seemed to foster PDC program implementation in the early years:

- the existence of federal categorical aid or service programs consistent in one or more features with PDC components,
- the existence of federal mandate P.L. 94-142.

Federal programs such as Title I, which provided additional reading and math resources for schools having a certain percentage of low-achieving, poor children and, in addition, required parent involvement in the program, Title VII, which provided additional resources for bilingual education, and Follow Through, which provided comprehensive health and social services to low income children and technical assistance in a particular educational model to the school, all were part of a national climate, or "zeitgeist" that legitimated the provision of resources generally to enhance the educational opportunities of children from poor families[1] and, together with P.L. 94-142, reinforced more specifically increased parent involvement and broader services to bilingual and handicapped children.

Conditions Affecting Implementation Decline

We pointed out earlier that relative levels of Guideline implementation declined over time, although PDC-unique elements of component coordination between Head Start and the elementary schools were more resistant to the forces of decay, especially in the Early Childhood Schools, than the other component elements. However, ECS programs also experienced an overall decline in component implementation from 1977, the first year of full program operation, through 1981, the last year. Several program-related as well as external factors contributed to this diminution in implementation:

[1]See Chapter I for more detailed descriptions of these programs.

- inevitable end-of-program processes
  - individual staff concern with future employment
  - shifting project staff from "soft" to "hard" money positions
- inflation, corresponding decrease in project purchasing power
- local economic downturn, millage defeats, reduced district budgets
- demographic changes: decreasing, shifting school-age populations; increasing mean age of teachers
- increased district pressure to equalize school resources
- turnover in principals, teachers and program staff
- changing educational priorities
- increased emphasis on "basics" and "accountability"
- district and state-mandated curricula
- state cutbacks in resources; state control of educational funding
- national cutbacks, uncertain future of compensatory programs
- turnover in ACYF project coordinators
- decrease in technical assistance received

Many of these factors constraining program implementation in the later years were related directly or indirectly to the changing economy. Even the first factor, which referred to shifts in program staff's attention or time commitment from the program to other activities, was indirectly related to the poor economy, because securing a new job was much more problematic in 1981 than it was in the early years of the program. While a few PDC staff were considered district employees in some sites and at least assured of some job, others in other sites were not, and had to devote some proportion of their time and energy to securing future employment for the following year. Central office administrators in one site (1) began the process of shifting PDC staff from "soft" to "hard" money at the beginning of the last program year, resulting in decreased services even before the close of the program.

Inflation also contributed to a diminution in services, since program grants remained relatively constant, or were slightly decreased during the last few years, while the purchasing power of the dollar inexorably declined.

At the district level local communities were profoundly affected by downturns in the local economy. Resources for special programs were curtailed in some sites, and one site was hard-pressed even to maintain academic programs, going to half-day sessions for part of one year. In this mid-western industrial site (7), millage after millage was defeated in the last three to four program years, and even teachers with up to ten years' seniority were cut. In the PDC school, gradually staffed during the earlier years by younger, less experienced teachers, almost all of the PDC trained staff were either pink-slipped or bumped by more experienced teachers, some of whom, certified K-8, had not been in an elementary school for 20 years.

At the same time some districts continued to implement a policy of periodic principal transfer among schools. When this happened in site 7 the final year, resulting in a new principal and almost new staff, program implementation was inevitably affected. This policy obviously worked against the exercise of principal leadership in developing unique programs and molding a cohesive staff, because principals knew they would inevitably be transferred, usually in four to five years. In the case of PDC, the policy also tended to diffuse the program among other buildings when PDC principals were transferred, sometimes to Comparison schools (site 3, for example).

Demographically, fewer school-age children were entering elementary schools, and the economically depressed northern states were experiencing a shift of some of their population southward. Fewer families meant fewer tax dollars, and fewer school-age children meant less state aid in some sites. Schools were closed and places had to be found for the teachers, again resulting in the newer teachers being pink-slipped. And the decreased monies available to districts curtailed their ability to supplement waning PDC resources.

Another result of the climate of economic austerity was the added pressure on districts to equalize resources across schools. Some sites had always acknowledged that they had an explicit policy of assigning special programs equally to schools across the district. But in an atmosphere of scarcity, the pressure to adhere to this policy became more pronounced. The implication for PDC was that if a school had PDC funds, other special programs that may have reinforced PDC were redistributed.

A factor that may have been indirectly related to the economic straits many sites were in was the pressure for special programs to prove their worth by at least maintaining children's academic achievement gains. When short-term improvements in children's achievement test performance were not forthcoming, districts were less likely to be tolerant than in the past when resources were plentiful. And when innovative programs such as the bilingual or individualized approach seemed to result in decrements in achievement, districts either discarded or seriously modified them to bring them into closer conformity with district curricula. Thus, our national belief in the importance of providing equal educational opportunities may have initially facilitated programs such as PDC, but our insistence on accountability, and the "back to basics" movement, especially during hard times, significantly constrained program implementation.

A factor at the district and state levels that served to constrain PDC education component implementation was the emergence of district or state-mandated curricula, sometimes with uniform specified student learning objectives (sites 4 and 10). These curricula were in some cases the antithesis of PDC's individualized approach, or at least were perceived as such, and represented a growing trend not only to demand accountability in achieving specified objectives but also to centralize decision-making concerning curricula.

A final factor at the national level was the increasing cutbacks in funds for compensatory educational programs. Those that were spared seemed only to have been granted temporary reprieves, and the implications of these cutbacks reverberated through every level of the educational system.

III

CONCLUSIONS

In this chapter we examine the PDC program's effectiveness as a comprehensive interinstitutional linkage model. The program was designed to enhance Head Start children's transition between preschool and elementary school, and between home and school. First, we review briefly the degree of program implementation. We then present conclusions that can be drawn from our analysis of the factors influencing the levels and patterns of program implementation. Finally, we consider the effectiveness of the change strategy adopted by ACYF to implement the model.

DEGREE OF PDC PROGRAM IMPLEMENTATION

Using the evaluation criterion of fidelity to PDC Guidelines, we found that the intended PDC program was not fully and consistently implemented over time at any site. Of the seven program components specified by ACYF, however, Developmental Support Services was implemented most completely and consistently across sites. Developmental Support Services was also one of the three components--along with Administration and Parent Involvement--that distinguished PDC from non-PDC schools at a majority of sites. Over the five years of program operation, average levels of component implementation were generally moderate. In the two final program years, levels of implementation tended to decline. *However, implementation in sites that had adopted the Early Childhood Schools model (Head Start classrooms within the elementary school) remained higher in the final years than in sites that chose the Preschool-School Linkage model.* Within each component it was the uniquely PDC feature of coordination between Head Start and elementary schools that accounted for the higher levels of implementation in ECS sites.

FACTORS INFLUENCING PDC PROGRAM IMPLEMENTATION

Three basic factors influenced the levels and patterns of PDC program implementation: (1) psychological, (2) organizational/cultural and (3) environmental.

Psychological Factors: Commitment and Sense of Ownership

Certain organizational relationships seemed to best facilitate the establishment of Head Start-elementary school linkage mechanisms (e.g., administrative arrangements such as principal formally responsible for innovation, district administrator committed to the innovation with line management relationship to principal, school district as delegate agency). Sites with more tightly coupled administrative arrangements seemed to encourage the development of a sense of ownership and accountability for the innovation at both the principal and district levels. *However, even in PDC programs where these organizational structures were in place, individuals found it difficult to maintain their ownership of and commitment to the innovation over the years of program operation.* For an innovative program lasting the number of years that PDC did (seven), maintaining individual commitment was as important as creating it. This condition did not affect local program staff as much as it did staff at higher levels of school district and project management.

One reason for the decline in individual commitment seemed to be that anticipated individual rewards for teachers, principals or administrators did not materialize beyond the yearly monetary grant. For example, many teachers anticipated visible improvements in student performance, but such improvements were not demonstrated by the PDC evaluation sample. This type of program outcome would also have strengthened the commitment of national officials involved in PDC.

Another reason for weakened individual commitment to the program was a high degree of unwanted staff turnover, which plagued PDC at every level--from local programs and schools to the national office. At the local level, high turnover meant that remaining staff members had to divert their attention from program operations to working with, training and socializing school newcomers--psychically more demanding tasks than maintaining existing relationships.

Another factor affecting individual commitment to PDC was that it was basically a preventive program, addressing problems that, although serious, were not considered urgent. In times of relative crisis, responding to more urgent problems, such as economic recession, legal mandates, court orders to desegregate, shrinking enrollments, repeated millage failures, and teacher strikes naturally took priority for school personnel. Interestingly, the emergence of nationwide legal mandates in the area of education apparently was effective in maintaining staff commitment to program implementation in areas directly affected by the mandates. For example, nationally mandated P.L 94-142, the Education for all Handicapped Children Act, supported features of the PDC Handicapped component. As a result, implementation in this area was fairly uniform across all PDC sites. The court order to desegregate two adjacent school districts motivated program and local district staff at one PDC site to maintain implementation levels over several component areas.

Avoiding legal sanctions that could be applied if a district were in non-compliance with certain laws seemed to be a potent motivation for individuals to undertake and maintain cooperative efforts at several levels of the educational system. *Legal mandates thus contributed to higher levels of implementation for those PDC program features affected by the mandates.*

Organizational Values and Structure

The establishment of organizational linkage mechanisms was more fully achieved in PDC sites where existing interinstitutional administrative relationships and educational programs needed primarily to be strengthened or elaborated rather than initiated or radically changed. The successful implementation of a program such as PDC, which was aimed at developing coordination and continuity between two separate institutions, seemed to depend upon an already established "common ground" of priorities and educational approach between or among the institutions involved. Where that effort was seen as one-sided, however, movement seemed to be slower. For example, in some of the PDC sites where initial educational approaches were dissimilar, staff of one institution (the public schools) received the impression that they were expected to do all of the changing in order to achieve that common ground. As a result, program implementation suffered at these sites.

Those features of the PDC model that were more fully implemented seemed to fall within the dynamic, potentially changeable zones of tolerance that lay on the boundaries of the schools' behavioral norms, so that the PDC innovations gradually pushed back the boundaries. Less successful program features directly challenged the core traditions. Given the nature of schools, it was not surprising that a multifaceted innovative project such as PDC did not produce more than incremental changes in teachers' core instructional or interactional behaviors. In fact, the strong social, cultural and situational imperatives of the school setting seemed to constitute built-in mechanisms that assured the institution a large measure of stability. These mechanisms of continuity (see, for example, Rosario & Lopes, 1981) are activated whenever innovative programs are introduced into a school setting.

The Influence of Environmental Forces

All PDC programs were challenged in varying degrees by powerful environmental forces that ultimately constrained implementation of Guideline requirements. By and large, these environmental forces arose during the course of program operation and could not have been predicted by program planners, technical assistance contractors, or program staff. These external forces were economic, educational, and demographic.

Economics

All PDC programs were negatively affected by the national economic recession, high inflation and budgetary cutbacks. Inflation seriously affected the purchasing power of all the PDC programs, since program funding remained relatively constant between 1974 and 1981. Some sites in which local school salaries were high (and in which PDC salaries were on the same schedule) compensated by reducing project staff. Other sites with similar problems reduced expenditures in other areas. Budgetary cutbacks in special programs at the state and national level also affected PDC program implementation at all sites, because the reinforcing, supportive services of these complementary programs were withdrawn (e.g., fewer aides and resource personnel).

The economic recession proved more serious for sites in the hardest hit geographic areas (the northern and midwestern industrial states) because of its reverberating effects in many areas of the community. For example, district budgets were cut, due in part to the loss of local jobs, which forced some families to move in search of employment. This out-migration, in turn, affected both local housing values and school enrollment figures. Those families remaining became increasingly reluctant to approve requests for additional school operating funds which would increase their property taxes. The consequences of the resulting local budget cutbacks were dismissal of less experienced teachers who were not replaced, reassignment of more experienced teachers to positions vacated by newer teachers ("bumping"), reduction in the school day due to elimination of non-essential programs, cuts in inservice training sessions, and elimination of special resource staff. Of course, all of these recession-related problems and events either directly or indirectly affected PDC.

Educational

Between 1974 and 1981 the political and educational climate in the United States seemed to have changed to such an extent that the educational priorities of PDC became incongruent with the times. The "back-to-basics" thrust that increasingly gathered strength across the country made the "whole child" approach of PDC seem out of step. Added to this movement was the trend in local districts to centralize decision-making regarding curriculum at the district level, thus forcing approaches developed at the building level to conform to district-wide requirements. Underlying this administrative trend was not only economic reality (cost savings accrue to orders for instructional materials for a whole district), but also the pressure on school systems to demonstrate accountability, which would be easier to measure if all teachers used the same materials.

However, the non-instructional features of the PDC model, such as broader parent and teacher involvement in school decision-making, continuity between Head Start and the public school in terms of record-keeping, and increased provision of comprehensive medical, dental, mental health and social services to school children were not swept aside by the changing

zeitgeist. If anything, interest in parent involvement in school activities seemed to pick up at the state and local level. Given the larger economic environment, however, add-on programs such as those represented by the Developmental Support Services and Parent Involvement components could not be absorbed by already strapped local school budgets, even though their value seemed to be increasingly endorsed.

Demographic

A national trend toward reduced birth rates which began several years ago inevitably resulted in a decrease in the school-age population. This demographic trend affected PDC program implementation through its impact on the schools. Declining enrollment meant reductions in state aid to schools based on the numbers of pupils enrolled. School budgets were thus hit by a "double-whammy"--the economic downturn and diminished state aid due to demographic trends. Declining school enrollment also affected the number of schools that districts could afford to keep open. A PDC school in one site was closed as a result of declining enrollment, and in other districts where PDC schools were not closed, more experienced teachers often bumped PDC teachers.

Causal Relationships Among the Factors

The three major factors affecting PDC program implementation (psychological, organizational/cultural and environmental) were analytically distinct, but meshed in the real world in complex and dynamic ways. For example, psychological factors such as commitment to the program and leadership style could make an impact both on program functioning and on the surrounding organization. But, generally, the direction of these influences on PDC proceeded from the external environment, were mediated indirectly through the cultural and organizational systems of the local district, and were then felt psychologically by the individuals connected to PDC. Changes in the economic and political environment were thus buffered by the local district, which as an open system was vulnerable to shifting sources of support and educational priorities. But eventually the PDC program felt the repercussions.

As we observed earlier, however, some program-district relationships and local district practices (e.g., tradition of principal autonomy, PDC program formally responsible to principal) proved to have greater resistance to the outside forces--although not the economic forces--threatening the PDC-inspired curriculum. The more tightly coupled, program-to-school-to-district relationships seemed to facilitate on the part of school personnel individual ownership of PDC and leadership in support of it. Principals whose actions were supervised by and supported by administrators at higher levels seemed to deal more decisively with internal conflict to the advantage of PDC.

While generally the impact of external forces on PDC was mediated organizationally, the impact on the program was also felt directly in terms of the decreased purchasing power of PDC grants and in terms of individuals' awareness of and interpretation of the changing conditions. Individuals were, after all, holding the various organizational positions at every level of program implementation, and their perceptions of the changing zeitgeist, of their colleagues' estimation of the program, of the costs of the program (time and energy) relative to its perceived benefits (politically and educationally) must have impacted them directly. Thus, it was important to principals and coordinators to have organizational reinforcement and support, both at higher levels and within their own buildings and programs. Those administrators who were bolstered by a cohesive, unified staff tended to counter better the discouragement fostered by the economic and political trends.

The change strategy adopted by ACYF also interacted with the psychological, organizational, and environmental forces that affected the PDC implementation process. In the next section we analyze the PDC change strategy.

FEDERALLY INITIATED PLANNED CHANGE

Consensus as to the most effective strategies for implementing educational innovations has yet to be achieved. If it is true that external change projects such as those initiated by the federal government can still serve a unique and necessary function of stimulating improvements in the way our educational systems serve children from low-income and culturally different families, then lessons learned from PDC's implementation approach may still have relevance.

The PDC implementation strategy was a compromise between the traditional directed development approach and the then-newer local problem-solving approach. It combined features of both strategies. It acknowledged what was currently known about the advantages of local problem-solving, in that to encourage local ownership of the innovation, it relied upon sites to operationalize the calculatedly vague PDC Guidelines according to their individual situations, but it did not go so far as to allow sites to identify their own problems. The PDC implementation strategy was also "directed" to the extent that there were certain program requirements specified in the Guidelines (for example, staffing patterns, topics of inservice training sessions, and composition of the PDC Council). These elements were not immutable. Rather, they were selectively modified at the request of various sites to meet local program needs, so that the "directed" aspect of the change strategy was attenuated over time.

ACYF staked out a middle ground between two contrasting change strategies and this seemed to result in a somewhat diluted mixture of each, with often inconsistent and unclear signals being sent to local programs. With such a hybrid strategy, and with a model not fully developed or operationalized,

there was a need for continuity of national program staff and technical assistance contractors to interpret the Guidelines and provide appropriate technical assistance consistently over time. However, logistically the PDC administrative system within ACYF was not set up to do this, and almost yearly turnover in national project officers exacerbated the situation.

The vagueness of the Guidelines together with the loose coupling of national program staff to local sites and of national staff to technical assistance contractors placed too much reliance on local programs' problem-solving capacity to operationalize a program with the scope of PDC. Many sites seemed not to have a clear idea of what they were getting into, and those who attempted most conscientiously to develop for themselves programs that exemplified the spirit of the PDC model--rather than adapt existing programs--found that they had undertaken a monumental task. The resources of the technical assistance contractors were sometimes inadequate to the task, and sites themselves were sometimes not capable of utilizing as fully as possible the assistance provided.

Although too much reliance was placed on sites' problem-solving capacity, not enough importance was placed on the principal as a change agent. Since PDC's inception, the principal's position within the culture of the school and as a liaison with other positions within the district has been increasingly identified as critical in studies on school change, especially relative to the implementation of innovative programs. Like other change strategies of its time, however, the PDC strategy underestimated the principal's role. Had principals in PDC been viewed as controlling the course of program implementation within their schools, greater attention might have been formally paid to their initial and continuing selection, indoctrination, and retention or removal.

One of the characteristics of the directed-development approach seems to be that it brings out value differences and areas of conflict between a community and the federal government.[1] A characteristic of the local problem-solving approach seems to be that it brings out value differences among interests within the community. This phenomenon occurred in PDC within the local neighborhood and within the school community.[2] This suggests that

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[1]Examples of this were seen in PDC: the need for negotiations among key actors in the project regarding the PDC Council's role and authority to make school-level decisions and the need for negotiations regarding program direction, especially in regard to the bilingual programs.

[2]The principal in one highly implemented site at the end of Phase I withdrew his support of PDC because community conflict over the federal program had become intolerable to him. He believed the benefits of PDC were not worth the cost of the continuing conflict, and PDC ended in that site.

conflict is inevitable when innovative programs are introduced into school settings. The issue thus seems to become how to manage the conflict constructively.

Many problems in PDC seemed to be related to a lack of mechanisms for managing and resolving conflict. No provisions were made in the PDC Guidelines for mediating the unavoidable disagreements among all stakeholders (school, program, district, national staff, evaluators, technical assistance contractors) that surfaced when substantial program development was undertaken. Although the change strategy was seen as process-oriented, procedures that would guide the negotiating processes were missing. Misunderstandings as to the implications for teachers of operationalizing the PDC concept also contributed to the conflict. The misunderstandings were due in large part, of course, to the vagueness of the Guidelines.

ACYF's reliance on the good intentions of those involved in implementing the PDC innovation--though typical of other innovative program planners at the time as well--was perhaps unrealistic. Inevitable problems of role definition, authority relationships, turf protecting arose, resulting in conflict. The lack of mechanisms for resolving such conflict resulted in greater dependence being placed on the principals' leadership skills for implementing the innovative program. As we observed in Chapter II, when principals did not exercise their leadership to resolve conflict, program implementation suffered.

The debilitating effect, both psychically and organizationally, of conflict may be an underlying reason why sites that had reached preliminary philosophical agreements and developed basically similar educational priorities were better implemented. Less program development was needed, and less internal conflict was generated.

In summary, like other federal demonstration programs, PDC achieved somewhat less than was hoped in some areas, but the lives of many economically disadvantaged children and their families benefited from the support services and parent activities provided by PDC. Generally moderate institutional linkages were achieved between Head Start and the public schools. School staff and parents did seem to work with each other in new ways as a result of PDC. But both indirectly through the schools and directly, PDC was vulnerable to changes in the external economic and political environment. PDC was particularly vulnerable to state and local curricular mandates, funding capacities, and organizational relationships. PDC was also affected by the inevitable interpersonal and interinstitutional conflicts that arise when organizational and educational change is undertaken, and when operationalization of federal intentions and requirements places substantial reliance on local problem-solving. No single best answer has yet been found for managing the implementation of national demonstration programs such as PDC, but our knowledge of effective strategies has increased, along with our understanding of the problems that will be encountered. This cumulative growth in our knowledge and understanding of the culture of schools, the needs of state and local education systems, and of the challenges of implementing innovative programs will hopefully guide future planned innovations.

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